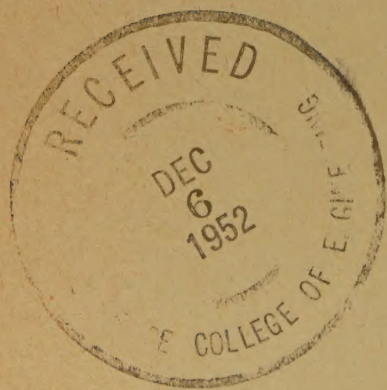


Monthly
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3

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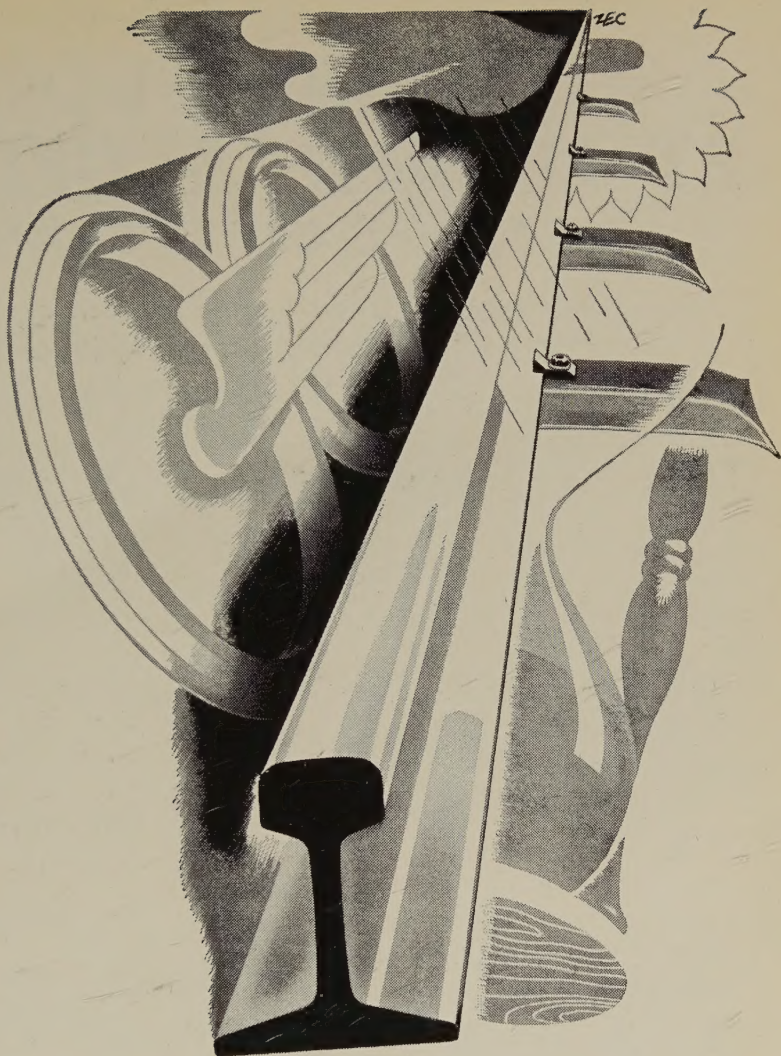
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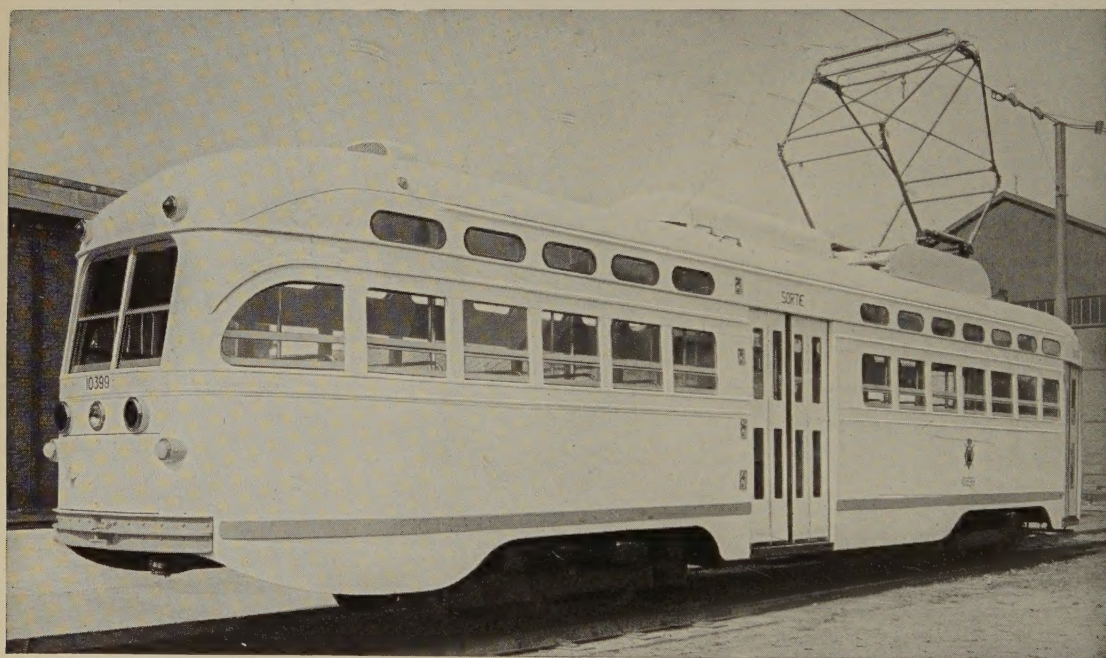
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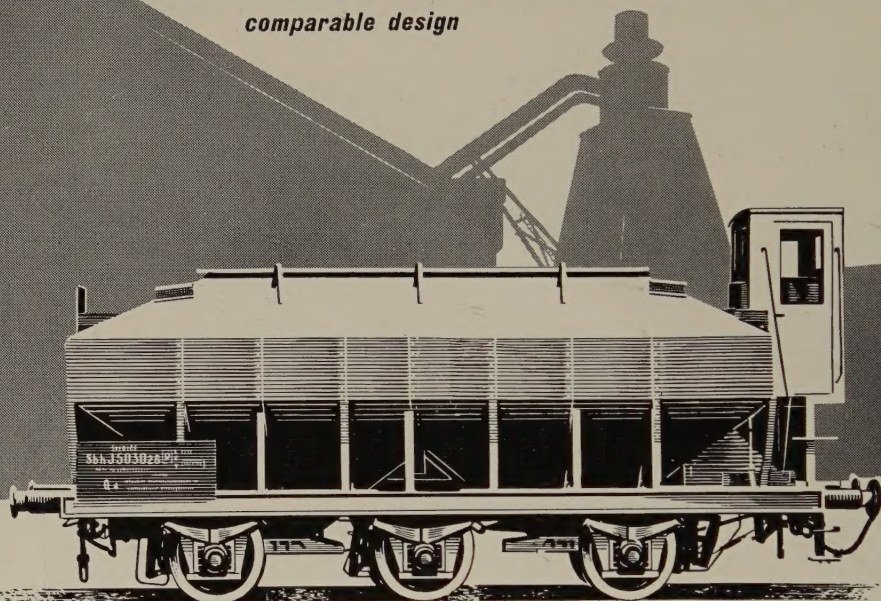
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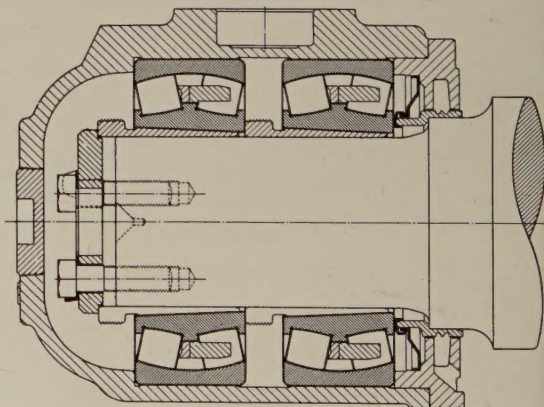
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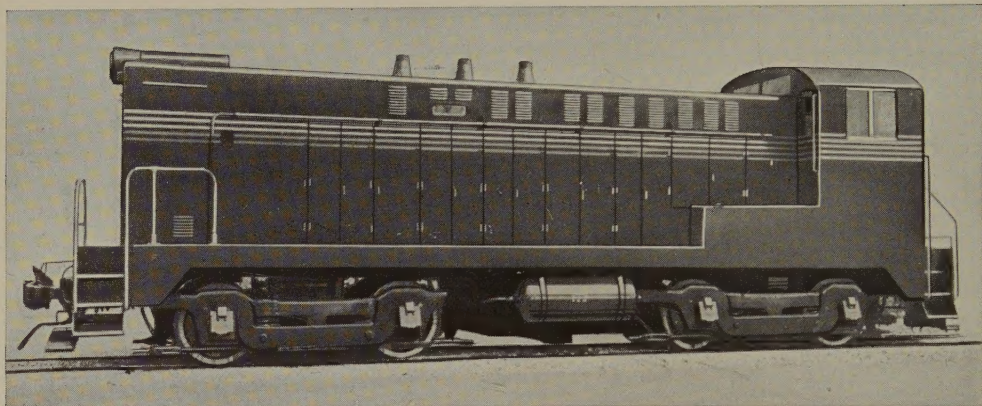
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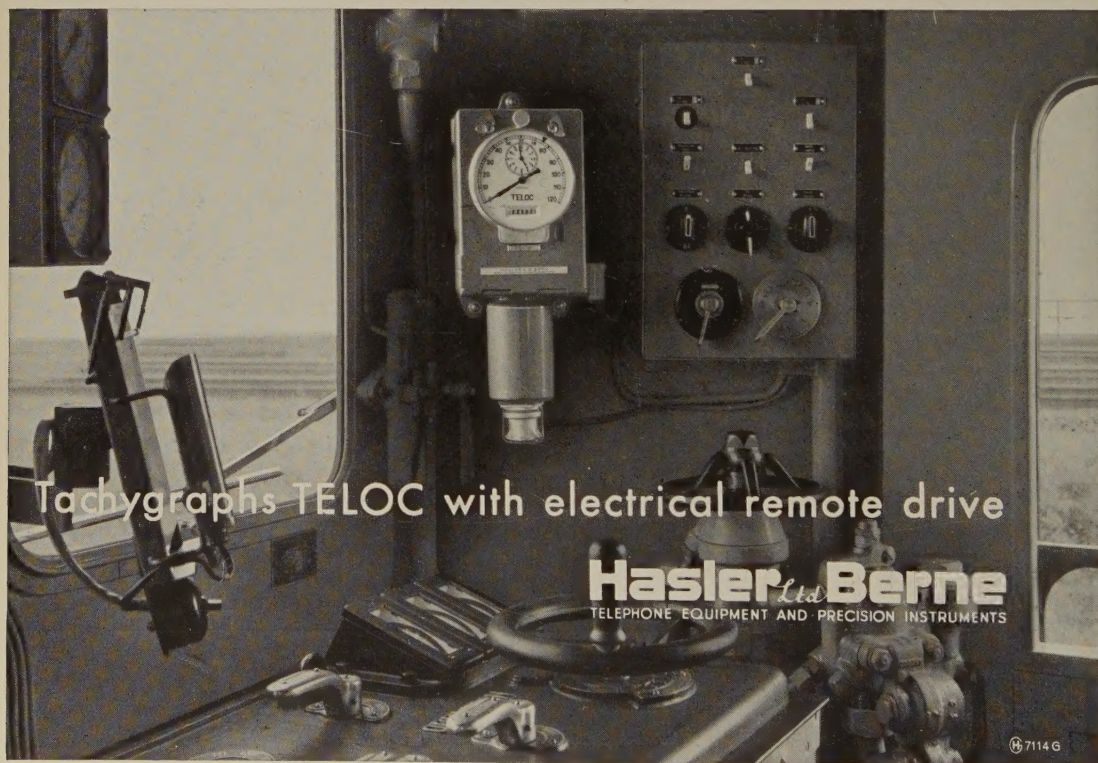
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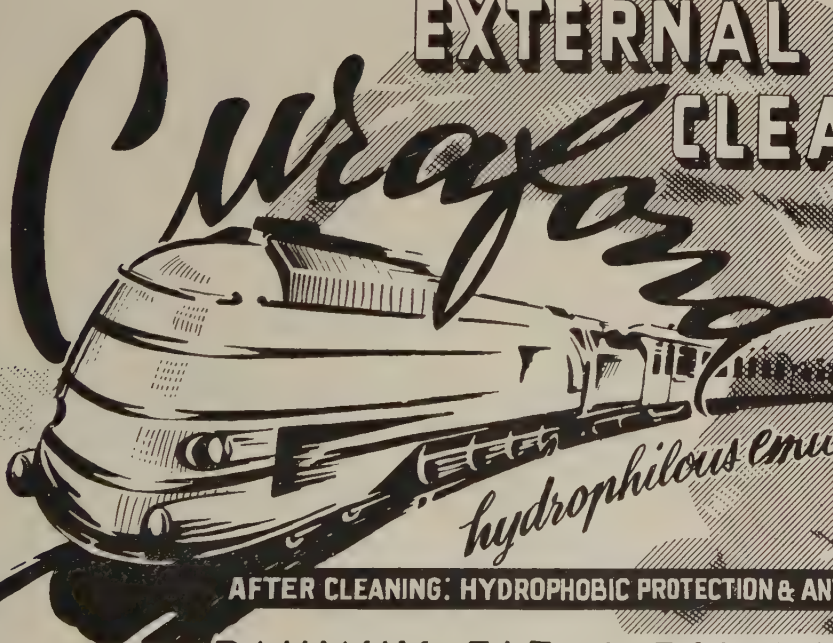
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MONTHLY BULLETIN
OF THE
INTERNATIONAL RAILWAY CONGRESS ASSOCIATION
(ENGLISH EDITION)

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LIBRARY OF THE Permanent Commission of the International Railway Congress Association

READING ROOM : 19, rue du Beau-Site, Brussels.

Works in connection with railway matters, which are presented to the Permanent Commission are mentioned in the « Bulletin ». They are filed and placed in the library. If the Executive Committee deems it advisable they are made the subject of a special notice. Books and publications placed in the reading room may be consulted by any person in possession of an introduction delivered by a member of the Association. Books, etc., may not be taken away except by special permission of the Executive Committee.

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An edition in French is also published.

BULLETIN
OF THE
INTERNATIONAL RAILWAY CONGRESS
ASSOCIATION
(ENGLISH EDITION)

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

Enlarged Meeting of the Permanent Commission at Stockholm
(9th to 11th June, 1952.)

The Permanent Commission held at Stockholm, from the 9th to 11th June 1952, several technical sessions, which were attended by most of its members and at the same time by a number of their Assistants, i. e. Engineers and High Officials belonging to the large Railway Systems.

The programme of the technical sessions included the examination of the three following questions :

I. « A. What are the new safety measures taken for level crossing of railway tracks by the road in respect of the density, high tonnage and speed of the road traffic?

« In particular automatic signalling and closing of level crossings without keepers, worked by the trains themselves.

« Technical and statistical investigation in order to ascertain the relative safety of :

« 1° level crossings with keepers, with the different devices to announce the arrival of the train to the keepers;

« 2° level crossings without keepers;

« a) without any self-acting device announcing the arrival of trains;

« b) with automatic signalling for the road-users;

« c) with automatic signalling completed by half- or entire gates.

« B. Cases of level crossing of railway tracks by a road with a railway (urban or suburban) running alongside. »

II. « What are the quickest and most economical means to carry out door to door service for railway transports?

« What are the best conditions of use of containers for small miscellaneous traffic (dimensions of the containers, conditions of ownership, tariffs)?

« What are the packing types to be recommended? »

III. « Economic aspects of :

« a) discontinuing service on old railway lines;

« b) construction of new railway lines, « with regard to the possibility of handling transport with other means. »

The study of these three questions was decided at the Meeting of the Permanent Commission of the 5th March 1951.

The list appearing in the Appendix 2, pages 762 to 766 of the present *Bulletin*, gives the names of members of the Permanent Commission and their assistants who were delegates at the technical meetings.

OFFICIAL INFORMATION

ISSUED BY THE

PERMANENT COMMISSION

OF THE

International Railway Congress Association.

Meetings held by the Permanent Commission at Stockholm (9th to 11th June, 1952).

A first meeting of the Permanent Commission was held on the 9th June last, at the *Malmen Hotel*, at Stockholm.

The Session, which opened at 10 p.m., was presided by Mr. F. H. DELORY, General Manager of the Belgian National Railways and President of the Association.

After having extended a welcome to the numerous personalities present, the PRESIDENT expressed on behalf of the Assembly, his most sincere thanks to Mr. E. UPMARK, *General Manager of the Swedish State Railways*, for the hearty welcome reserved to the delegates on their arrival in Stockholm. The PRESIDENT then opened the discussion of the Agenda.

He submitted to the approval of the Meeting the Minutes of the Session of the 1st March 1952, those were confirmed.

THE PRESIDENT then spoke about the representation of Germany and Japan on the Permanent Commission.

With regard to Germany, he explained that owing to the present activities of the German Railways in international affairs, the Executive Committee had invited the « *Deutsche Bundesbahn* » to be represented at the Meeting by two Delegates.

This invitation was accepted in principle, but owing to the reorganization of the management of the *Bundesbahn*, the latter had only sent one representative to attend the Stockholm Meeting.

Concerning the number of mandates to be allocated to Germany, taking into account the present mileage of the « *Bundesbahn* », the Executive Committee has proposed 4 seats for the German delegates on the Permanent Commission.

As regards Japan, that country had one seat on the Permanent Commission since 1923, and its readmission was approved at the Rome meeting of the 25th September 1950. The Executive Committee has proposed the readmittance of Japan on the Permanent Commission as soon as its re-affiliation will be realized.

— The Assembly approved these proposals.

THE PRESIDENT further informed the Meeting that the Executive Committee, replying to the wish expressed by Mr. UPMARK, had decided the creation of a new mandate in favour of Finland, a member of our Association since 1922, with whom we had always the best relationship.

The candidate of Finland is Mr. LEHTINEN, Deputy General Manager of the Finnish State Railways.

This appointment was unanimously approved.

Mr. GHILAIN, *Vice-President and General Secretary*, stated that in addition to the appointment of Mr. LEHTINEN, there was also a proposal for the nomination of :

H. E. TARRAF ALI PACHA, Egyptian Minister of Communications, to replace H. E. Mohamed EL WAKIL, who is no more in office. (*Approved.*)

— APPENDIX I *hereafter gives the present composition of the Permanent Commission.*

The Assembly then formed the Bureau of the technical Sessions to be held the 9th, 10th and 11th June, as follows :

SECTION I. — Way and Works :

President :

Mr. R. LÉVI.

Vice-Presidents :

Mr. G. DI RAIMONDO and
Mr. H. STOKKE.

Principal Secretary :

Mr. J. DUBUS.

Secretaries :

Mr. UNAL and
Mr. J. GLENDINNING.

SECTION III. — Working :

President :

Mr. A. A. HARRISON.

Vice-Presidents :

Mr. F. Q. DEN HOLLANDER and
Mr. LEHTINEN.

Principal Secretary :

Mr. UYTBORCK.

Secretaries :

Mr. SURLEAU and
Mr. PUNT.

SECTION IV. — General :

President :

Mr. E. UPMARK.

Vice-Presidents :

Mr. J. M. GARCIA-LOMAS and
Mr. E. TERKELSEN.

Principal Secretary :

Mr. H. LENFANT.

Secretaries :

Mr. BENY and
Mr. Ch. E. WHITWORTH.

Mr. Ch. E. WHITWORTH was also appointed English Assistant to the General Secretary.

THE PRESIDENT recalled that at the meeting of the 1st March 1952, it was decided that the London Congress of 1954 would take place in May.

Following information communicated by Lord HURCOMB, *Chairman of the British Transport Commission*, the final date is fixed as from the 19th to the 26th May 1954.

Mr. GHILAIN, *General Secretary*, gave the names of the Reporters already designated for the drafting of the reports on the questions on the agenda of the London Congress.

— APPENDIX 3 giving the list of these questions appears on pages 767/768 of the present Bulletin.

THE PRESIDENT informed the Assembly of the talks which were taking place with Mr. F. Ch. BADHWAR, President of the Railway Board, Government of India, concerning the invitation to hold a meeting of the Permanent Commission at New Delhi in 1953. He suggested to postpone this question for the agenda of the Session of Wednesday 11th June of the Permanent Commission. (*Adopted.*)

THE PRESIDENT next mentioned that no new affiliations or resignations occurred since the meeting of the 1st March 1952.

He gave particulars on the financial position of the Association to end the meeting.

MEETING OF THE PERMANENT COMMISSION OF THE 11TH JUNE 1952.

The Meeting opened at 10 a.m.

Mr. F. H. DELORY, *President of the Association*, was in the Chair.

THE PRESIDENT stated that the first point on the agenda was the ratification of the Summaries adopted in the 3 Sections during the technical meetings.

— A short report on the examination

of these Summaries appears on pages 826 to 828 of the present Bulletin, under the heading : « *Proceedings of the Plenary Meeting of the 11th June 1952* ».

After the examination of the final text of the Summaries, the PRESIDENT recalled that the second point on the agenda was the invitation received from India to hold a meeting of the Permanent Commission at New Delhi in 1953, question which was already on the agenda of the Session of the 9th June.

Some talks had taken place in the meantime with Mr. BADHWAR, Representative of India, and the PRESIDENT stated that the following solution was agreed.

As it is not the tradition to hold abroad the meetings of the Permanent Commission, and on the other hand, the principal reason of the invitation of the Indian Government being the celebration of the Centenary of their Railways, Mr. BADHWAR has agreed to propose to his Government and to his Administration, to invite the Governments and Railway Administrations wishing so, to participate to the celebration of this Centenary. The Permanent Commission would be also invited and represented by a delegation designated by the Executive Committee. This delegation could eventually hold a meeting, without calling this by the official denomination « Permanent Commission ».

THE PRESIDENT ended by expressing to Mr. BADHWAR on behalf of the Permanent Commission of the Association, his most sincere thanks for this kind invitation.

— The Meeting gave its approval with loud applause. The session ended at 12.10 p.m.

The General Secretary, The President,
(s) P. GHILAIN. (s) F. H. DELORY.

The technical meetings took place in the modern setting of the « Hotel Malmen » graciously put at the disposal of the Association.

The inaugural meeting took place on Monday the 9th June at 11.30 a.m. It was honoured by the presence of His Excellency the Swedish Minister of Communications, Mr. Sven ANDERSSON.

Mr. DELORY, *President of the Association*, after declaring the Stockholm Reunion open, expressed his hearty appreciation to His Excellency the Minister of Communications, who by his presence, bore witness to the interest he took in the progress of the railways and work of the Association. He also paid homage to the work done by the Local Organization Committee, which had assured the success of the Stockholm Reunion.

Mr. UPMARK, *General Manager of the Swedish State Railways*, in warm terms welcomed all the delegates and stressed the importance of the work of the Reunion and the principal points of the programme for which he prophesied the greatest success.

His Excellency the Minister of Communications associated himself with Mr. UPMARK's remarks and in his turn welcomed the delegates. He pointed out the importance of the problems covered by the programme of the Reunion and

stressed the interest Sweden and its Railways had in their collaboration with the work of the Association. He ended by expressing a wish that the Stockholm Meeting would be most successful.

The technical meetings began on Monday 9th June at 2.30 p.m. The respective Sections went into the special reports drawn up on the three questions on the agenda and had interesting discussions in which the representatives of the chief railways took part.

These meetings were continued the next day, June 10th, and the Summaries were discussed before being finally submitted for approval to the Plenary Meeting of the Permanent Commission on Wednesday June 11th.

This latter meeting took place at 9.30 a.m. and all the members of the Permanent Commission present in Stockholm attended.

The Meeting, with Mr. DELORY in the Chair, examined and discussed the proposals and summaries presented by the Office of each of the three Sections, and the final texts were unanimously approved.

These Summaries are given on pages 829 to 840 of the present issue of the *Bulletin*.

On the evening of the 9th June, there was the Banquet offered by the Permanent Commission to the Swedish Authorities and Members of the Commission, presided over by Mr. DELORY. The Chiefs of States were toasted at this banquet.

On the next day, June 10th, the Swedish State Railway Administration invited all the delegates to attend a Banquet given

in the « Golden Hall » of the Stockholm Town Hall. This banquet was presided over by H. E. the Minister of Communications, Mr. Sven ANDERSSON, assisted by Mr. UPMARK, General Manager of the Swedish State Railways and Mr. DELORY, President of the Association.

After a toast in honour of His Majesty the King of Sweden, speeches were made by H. E. the Minister of Communications and by Mr. UPMARK, General Manager of the Swedish State Railways. Mr. DELORY replied to these in the name of all the delegates, and reiterated their warm feelings towards Sweden.

At the conclusion of the banquet, there was a display of modern Swedish gymnastics in the « Blue Hall » adjacent to the banquet hall.

On Wednesday 11th June, delegates and their wives took part in excursions to the suburbs of Stockholm, during which they visited the premises of the AGA and L. M. ERICSSON factories.

After a luncheon offered by these Firms, delegates visited their installations and were able to talk with the management and engineers who showed them round.

On returning to Stockholm, delegates visited a technical exhibition of the most up to date Swedish Railway equipment organized at the Stockholm Southern Station.

Next day, Thursday June 12th, there was an excursion to Hofors and Falun, organized by the Swedish Railways in honour of the delegates and their wives.

The journey was made in a special train consisting of modern coaches of types chosen to demonstrate to the delegates the latest Swedish rolling stock.

After running through the rich country

known as Uppland, the train reached Upsal, a university city and the seat of the Archbishop of Sweden, then beyond Krylbo, one of the largest junctions in Sweden, Hofors.

At Hofors, the delegates were taken by car to the S. K. F. Steelworks round which they were conducted by the guides put at their disposal. First of all, they went through the curious town of Hofors built exclusively for the steelworks staff and to a great extent by the steelworks themselves.

After a luncheon offered by the firm, they returned to the cars which took them to Falun.

At Falun, they had a chance to visit the copper mines of the « Stora Kopparbergs Bergslags » Company where they were able to admire the historic industrial collections of this Company. That evening they were once again the guests of the S. K. F. Company, who organized a dinner in their honour at the Falun Grand Hotel which was followed by a display of folkdancing.

A special sleeping-car train took the delegates back to Stockholm, with the exception of those who wished to prolong their stay in Sweden or visit the other Scandinavian countries, who had a choice of five different excursions organized for their benefit.

The delegates who took part in these excursions were able to travel over extremely interesting itineraries in Sweden, Finland, Norway and Denmark, thanks to the kindness of the Administrations of the railways of these countries, who were good enough to take part in the organization of these excursions and grant the necessary travelling facilities.

List of Members of the Permanent Commission

OF THE

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

(9th JUNE 1952)

President :

F. H. Delory (3), directeur général de la Société Nationale des Chemins de fer belges; 19, rue du Beau-Site, Bruxelles.

Vice-presidents :

Goursat (1), directeur de la Région du Nord de la Société Nationale des Chemins de fer français; 18, rue de Dunkerque, Paris (X^e);

P. Ghilain (2), directeur du Service du Matériel et des Achats de la Société Nationale des Chemins de fer belges; 19, rue du Beau-Site, Bruxelles.

Members of the Executive Committee :

Dorges (3), inspecteur général des Ponts et Chaussées, secrétaire général aux Travaux publics, directeur général des Chemins de fer et des Transports au Ministère des Travaux publics et des Transports; 244, boulevard Saint-Germain, Paris;

Lord Hurcomb (1), Chairman of the British Transport Commission; 55, Broadway, London, S. W. 1;

Sir Gilmour Jenkins (2), Secretary to Minister of Transport (Great-Britain); Berkeley Square House, Berkeley Square, London, W. 1.

Ex-presidents of session, members ex-officio :

Ing. G. di Raimondo, directeur général des Chemins de fer de l'Etat italien; Rome;

S. E. Ibrahim Fahmy Kerim Pacha; Le Caire;

Dr W. Meile, ancien président de la Direction générale des Chemins de fer fédéraux suisses; Brugglerweg, 11, Berne.

Members :

S. E. Abdel Rahman el Sayed Ammar Bey (3), sous-secrétaire d'Etat au Ministère des Communications d'Egypte; Le Caire;

Armand (3), directeur général de la Société Nationale des Chemins de fer français; 88, rue St-Lazare, Paris (IX^e);

F. Ch. Badhwar (3), Chairman, Railway Board, Ministry of Railways, Government of India; New Delhi;

V. M. Barrington-Ward (2), member of the Railway Executive (British Railways); 222, Marylebone Road, London, N. W. 1;

R. Benjumea y Burin, Comte de Guadalhorce (3), Président du Conseil d'Administration du Réseau National des Chemins de fer espagnols; Madrid;

J. Benstead (1), Deputy Chairman of the British Transport Commission; 55, Broadway, London, S.W. 1;

Besnard (2), chef de service adjoint au directeur général des Chemins de fer et des Transports, Ministère des Travaux publics et des Transports; 244, boulevard Saint-Germain, Paris;

David Blee (3), member of the Railway Executive (British Railways); 222, Marylebone Road, London, N. W. 1;

J. Bouciqué (3), directeur du Service de la Voie de la Société Nationale des Chemins de fer belges; 17, rue de Louvain, Bruxelles;

Ch. Boyaux (2), directeur général adjoint de la Société Nationale des Chemins de fer français; 88, rue Saint-Lazare, Paris (IX^e);

R. Claudon (3), inspecteur général des Ponts et Chaussées, vice-président du Conseil d'administration de la Société Nationale des Chemins de fer français; 88, rue Saint-Lazare, Paris (IX^e);

M. W. Clement (1), Chairman of the Board Pennsylvania Railroad Company; Broad Street Station Building, 1617, Pennsylvania Boulevard, Philadelphia, 4, Pa.;

Dr R. Cottier (1), directeur de l'Office Central des Transports Internationaux par Chemins de fer; Berne;

(1) Retires at the 16th session.

(2) Retires at the 17th session.

(3) Retires at the 18th session.

- T. C. Courtney** (3), Chairman of the Coras Iom-pair Eireann, Kingsbridge Station, Dublin;
- M. Crem** (1), directeur du Service de l'Exploitation de la Société Nationale des Chemins de fer belges; 17, rue de Louvain, Bruxelles;
- Csanádi** (1), Directeur Général des Chemins de fer de l'Etat hongrois; Budapest;
- D^r Ing. A. Cuttica** (3), chef du Service du Matériel et de la Traction des Chemins de fer de l'Etat italien; Florence;
- Dargeou** (3), directeur du Service central du Mouvement de la Société Nationale des Chemins de fer français; 8, rue de Londres, Paris, (IX^e);
- J. de Aguinaga** (2), Director General de Ferrocarriles, Tranvías y Transportes por carretera; Madrid;
- F. H. Delory** (already named);
- F. Q. den Hollander** (1), président des Chemins de fer néerlandais, S. A.; Utrecht;
- Ing. V. Desic** (2), professeur à la Faculté Technique de Belgrade, Conseiller permanent du Ministère des Chemins de fer de la République fédérative populaire yougoslave; Belgrade;
- M. Devos** (1), directeur général de la Société Nationale belge des Chemins de fer vicinaux; 14, rue de la Science, Bruxelles;
- Dias Trigo** (1), directeur des Services d'Exploitation et du Matériel de la Direction des Transports terrestres au Ministère des Travaux publics et des Communications du Portugal; Lisbonne;
- Ing. G. di Raimondo** (already named);
- Dorges** (already named);
- J. Elliot** (1), Chairman of the Railway Executive (British Railways); 222, Marylebone Road, London, N. W. 1;
- S. E. Hassan Bey Fahmy** (3), directeur général adjoint de l'Administration des Chemins de fer, Télégraphes et Téléphones de l'Etat égyptien; Le Caire;
- W. T. Farici** (3), president, Association of American Railroads; Transportation Building, Washington, 6. D. C.;
- D^r Ing. F. Fazio** (1), conseiller d'administration aux Chemins de fer de l'Etat italien; Rome;
- J. M. Garcia-Lomas** (2), directeur du Réseau National des Chemins de fer espagnols; Madrid;
- P. Ghilain** (already named);
- Goursat** (already named);
- Dr. Gschwind** (2), président de la Direction générale des Chemins de fer fédéraux suisses; Berne;
- Ranald J. Harvey** (3), consulting engineer to the Government of New Zealand (Railways); 34, Victoria Street, Westminster, London, S. W. 1;
- Lord Hurcomb** (already named);
- D^r Huyberechts** (2), directeur général adjoint de la Société Nationale des Chemins de fer belges; 17, rue de Louvain, Bruxelles;
- Sir Gilmour Jenkins** (already named);
- Ing. Ch. Kalitzov** (2), chef de la Section du mouvement des Chemins de fer et des Ports de l'Etat bulgare; Sofia;
- A. Kriz** (3), ingénieur, conseiller supérieur de Section au Ministère des Communications de la République tchécoslovaque; Prague;
- R. Kunz** (2), directeur de l'Office fédéral des transports; Berne;
- D^r N. Laloni** (1), chef du Service Commercial et du Trafic des Chemins de fer de l'Etat italien; Rome;
- D^r Ing. G. Lasz** (3), conseiller d'administration aux Chemins de fer de l'Etat italien; Rome;
- F. L. Lehtinen** (3) Directeur Général adjoint des Chemins de fer de l'Etat de Finlande; Helsinki;
- Lemaire** (2), directeur à la Société Nationale des Chemins de fer français; 88, rue Saint-Lazare, Paris (IX^e).
- R. Lévi** (2), directeur des Installations fixes de la Société Nationale des Chemins de fer français; 42, rue de Châteaudun, Paris;
- G. Lindenberg** (3), advisory engineer to the High Commissioner for the Union of South Africa; South Africa House, Trafalgar Square, London, W. C. 2;
- Ing. R. Luna** (2), directeur général des Chemins de fer de l'Etat argentin; Buenos-Aires;

(1) Retires at the 16th session.

(2) Retires at the 17th session.

(3) Retires at the 18th session.

- M. Malderez** (2), secrétaire général du Ministère des Communications de Belgique; 17a, rue de la Loi, Bruxelles;
- Ing. F. Marin** (3), vice-directeur général des Chemins de fer de l'Etat italien; Rome;
- Ing. P. P. Martin** (1), directeur national de la Planification et de la Coordination du Ministère des Transports de la République d'Argentine; Buenos-Aires;
- D^r W. Meile** (already named);
- P. Nolet de Brauwere** (3), Secrétaire Général de la Société Nationale des Chemins de fer belges; 17, rue de Louvain, Bruxelles;
- J. H. Nuelle** (3), president, Delaware & Hudson Railroad Corporation; 32, Nassau Street, New York City;
- G. Olivier** (1), directeur général adjoint de la Société Nationale des Chemins de fer belges; 17, rue de Louvain, Bruxelles;
- D^r Ing. V. Perrone** (1), inspecteur général supérieur de la Motorisation Civile et des Transports concédés; Rome;
- X. Remy** (1), directeur des Chemins de fer Fribourgeois et président de l'Union d'Entreprises suisses de Transport; 3, avenue de Pérolles; Fribourg;
- R. A. Riddles** (3), member of the Railway Executive (British Railways); 222, Marylebone Road, London, N. W. 1;
- D^r M. Schantl** (3), Secrétaire général des Chemins de fer fédéraux autrichiens; 9, Elizabethstrasse, Vienne I;
- H. E. Stokke** (2), directeur général des Chemins de fer de l'Etat norvégien; Oslo;
- S. E. Tarraf Aly Pacha** (1), Ministre des Communications d'Egypte; Le Caire;
- E. D. Terkelsen** (3), directeur général des Chemins de fer de l'Etat danois; 40, Sölvgade, Copenhague, K;
- J. C. L. Train** (2), member of the Railway Executive (British Railways); 222, Marylebone Road, London, N. W. 1;
- Tuja** (1), secrétaire général de l'Union internationale des Chemins de fer; 10, rue de Prony, Paris;
- E. G. J. Üpmark** (2), directeur général des Chemins de fer de l'Etat suédois; Stockholm;
- H. van Galen Last** (3), directeur général des Transports au Ministère des Transports et du Waterstaat; La Haye;
- F. Perez Villamil** (2), directeur adjoint du Réseau National des Chemins de fer espagnols; Madrid;
- Wagner** (1), ingénieur en chef au Ministère des Communications de Pologne; Varsovie;
- S. E. le D^r Sayed Abdel Wahed Bey** (3), directeur général à l'Administration des Chemins de fer, Télégraphes et Téléphones de l'Etat égyptien; Le Caire;
- R. B. White** (1), president, Baltimore & Ohio Railroad Company; Baltimore, Md;
- Lt.-Col. G. R. S. Wilson** (2), chief inspecting officer of Railways, Ministry of Transport; Berkeley Square House, Berkeley Square, London, W. 1;
- N... (2) China. N... (2) Rumania.
N... (2) Switzerland.

Honorary members : **R. da Costa Couteiro**, ancien président du Conseil supérieur des Travaux publics au Ministère des Travaux publics et des Communications du Portugal; Alameda das Linhas de Torres, 149, Lisbonne;

U. Lamalle, directeur général honoraire de la Société Nationale des Chemins de fer belges, professeur de cours de chemins de fer à l'Université de Louvain; 175, avenue Winston Churchill, Uccle-Bruxelles.

(1) Retires at the 16th session.

(2) Retires at the 17th session.

(3) Retires at the 18th session.

SECRETARY'S OFFICE : 19, rue du Beau Site, Brussels.

General Secretary : P. Ghilain.

LIST OF PARTICIPANTS

TO THE STOCKHOLM MEETING.

* Members of the Permanent Commission.

** Assistants to Members of the Permanent Commission.

-
- * **Armand**, Directeur général de la Société Nationale des Chemins de fer français. (*Excused.*)
 - ** **R. Bourgeois**, Chef adjoint de la Direction Commerciale de la Société Nationale des Chemins de fer français.
 - ** **J. Girette**, Directeur de la Région du Sud-Ouest de la Société Nationale des Chemins de fer français.
 - * **F. Ch. Badhwar**, Chairman, Railway Board, Ministry of Railways, Government of India.
 - ** **L. N. Mathur**, Mechanical and Electrical Engineer, Indian Government Railways.
 - ** **W. G. W. Reid**, Railway Adviser to the High Commissioner for India in London.
 - * **V. M. Barrington-Ward**, Member of the Railway Executive (British Railways).
 - ** **R. H. Hacker**, Chief Officer (Continental), Railway Executive (British Railways).
 - ** **J. L. Harrington**, Chief Officer (Marine and Administration), Railway Executive (British Railways).
 - ** **R. F. Harvey**, Chief Officer (Motive Power), Railway Executive (British Railways).
 - * **J. Benstead**, Deputy Chairman of the British Transport Commission.
 - * **R. Besnard**, Chef de service adjoint au Directeur général des Chemins de fer et des Transports, Ministère des Travaux publics et des Transports (France). (*Excused.*)
 - ** **Créange**, Ingénieur en chef des Transports au Service du Contrôle Technique de la Direction Générale des Chemins de fer et des Transports, Ministère des Travaux publics et des Transports (France).
 - * **J. Bouciqué**, Directeur du Service de la Voie de la Société Nationale des Chemins de fer belges,
 - * **Ch. Boyaux**, Directeur général adjoint de la Société Nationale des Chemins de fer français.
 - * **D^r R. Cottier**, Directeur de l'Office Central Transports Internationaux par Chemins de fer.
 - * **T. C. Courtney**, Chairman of the Coras Iompair Eireann.
 - ** **D. Herlihy**, Chief Engineer, Coras Iompair Eireann.
 - ** **F. P. Lemass**, Chief Officer to the Coras Iompair Eireann.
 - * **R. da Costa Couvreur**, ancien Président du Conseil supérieur des Travaux publics au Ministère des Travaux publics et des Communications du Portugal. Membre d'honneur de la Commission Permanente de l'Association.
 - ** **C. G. Craveiro Lopes Couvreur**, Ingénieur en Chef du Service des Ponts et Chaussées, « Junta Autónoma de Estradas » (Portugal).
 - * **M. Crem**, Directeur du Service de l'Exploitation des Chemins de fer belges.
 - * **D^r Ing. A. Cuttica**, Chef du Service du Matériel de la Traction des Chemins de fer de l'Etat italien.
 - ** **M. A. Fanelli**, Inspecteur en Chef Supérieur au Service du Matériel et de la Traction des Chemins de fer de l'Etat italien.
 - * **Dargeou**, Directeur du Service central du Mouvement de la Société Nationale des Chemins de fer français. (*Excused.*)
 - ** **Joffre**, Ingénieur en Chef au Service central du Mouvement de la Société Nationale des Chemins de fer français.
 - * **J. de Aguinaga**, Director General de Ferrocarriles y Transportes por Carretera (Espagne).
 - ** **F. Turell Boladeres**, Inspecteur général des Chemins de fer Espagnols au Ministère des Ferrocarriles, Tranvías y Transportes por Carretera.

- * **F. H. Delory**, Directeur général de la Société Nationale des Chemins de fer belges, Président de l'Association Internationale du Congrès des Chemins de fer.
- * **F. Q. den Hollander**, Président des Chemins de fer Néerlandais.
- ** **J. P. Koster**, Ingénieur principal au Service de la Traction et des Ateliers des Chemins de fer Néerlandais.
- * **M. Devos**, Directeur général de la Société Nationale des Chemins de fer vicinaux (Belgique).
- ** **R. Hoens**, Ingénieur en Chef, Chef de groupe à la Société Nationale des Chemins de fer vicinaux.
- * **Ing. G. di Raimondo**, Directeur général des Chemins de fer de l'Etat italien.
- ** **F. Milone**, Inspecteur de 2^e classe aux Chemins de fer de l'Etat italien.
- * **E. Dorges**, Inspecteur général des Ponts et Chaussées, Secrétaire général aux Travaux publics, Directeur général des Chemins de fer et des Transports au Ministère des Travaux publics et des Transports (France).
- ** **Balensi**, Ingénieur des Ponts et Chaussées, Adjoint au Secrétaire général aux Travaux publics, Ministère des Travaux publics et des Transports (France).
- * **D^r Ing. F. Fazio**, Conseiller d'administration aux Chemins de fer de l'Etat italien.
- ** **B. Renda**, Chef de Service au Service de la Voie des Chemins de fer de l'Etat italien.
- * **J. M. Garcia-Lomas**, Directeur du Réseau National des Chemins de fer espagnols.
- ** **M. Macias**, Sous-Directeur du Réseau National des Chemins de fer espagnols.
- * **P. Ghilain**, Directeur du Service du Matériel et des Achats de la Société Nationale des Chemins de fer belges, Vice-Président et Secrétaire général de l'Association Internationale du Congrès des Chemins de fer.
- * **Goursat**, Directeur de la Région du Nord de la Société Nationale des Chemins de fer français.
- * **D^r H. Gschwind**, Président de la Direction générale des Chemins de fer fédéraux suisses.
- ** **O. Wichser**, Chef de la Division des Travaux des Chemins de fer fédéraux suisses.
- * **Ranald J. Harvey**, Consulting engineer to the Government of New Zealand (Railways).
- * **Lord Hurcomb**, G. C. B., K. B. E., Chairman of the British Transport Commission.
- * **R. Kunz**, Directeur de l'Office fédéral des Transports (Suisse). (*Excused.*)
- ** **O. Hirzel**, Chef du Service Technique et d'Exploitation de l'Office fédéral des Transports.
- * **D^r N. Laloni**, Chef du Service Commercial et du Trafic des Chemins de fer de l'Etat italien. (*Excused.*)
- ** **F. Santoro**, Inspecteur en Chef au Service Commercial des Chemins de fer de l'Etat italien.
- * **U. Lamalle**, Directeur général honoraire de la Société Nationale des Chemins de fer belges, Membre d'honneur de la Commission Permanente de l'Association.
- * **D^r Ing. G. Lasz**, Conseiller d'administration aux Chemins de fer de l'Etat italien.
- ** **M. Fiachetti**, Chef du Compartiment de Milan des Chemins de fer de l'Etat italien.
- * **Lehtinen**, Directeur général adjoint des Chemins de fer de l'Etat de Finlande.
- * **R. Lévi**, Directeur des Installations fixes de la Société Nationale des Chemins de fer français.
- * **G. Lindenberg**, Advisory engineer to the High Commissioner for the Union of South Africa (London).
- * **M. Malderez**, Secrétaire général du Ministère des Communications de Belgique.
- ** **J. Vrebos**, Directeur général de l'Administration des Transports au Ministère des Communications de Belgique.
- * **D^r Ing. V. Perrone**, Inspecteur général supérieur de la Motorisation Civile et des Transports concédés, Ministère des Transports (Italie).
- ** **D^r Ing. E. Roscioni**, Inspecteur général à l'Inspectorat général de la Motorisation Civile et des Transports concédés (Italie).
- ** **Av. A. Morganti**, Inspecteur en Chef à l'Inspectorat général de la Motorisation Civile et des Transports concédés (Italie).
- * **X. Remy**, Directeur des Chemins de fer Fribourgeois et président de l'Union d'Entreprises suisses de Transport. (*Excused.*)
- ** **F. Steiner**, ancien Directeur de l'Office Fédéral des Transports, expert de la Compagnie des Chemins de fer Fribourgeois.

- * **R. A. Riddles**, Member of the Railway Executive (British Railways).

** **R. C. Bond**, Chief Officer (Locomotive Construction and Maintenance), Railway Executive (British Railways).

** **E. A. W. Dickson**, Treasurer Assistant to Chief Financial Officer, Railway Executive (British Railways).

** **H. Randle**, Carriage and Wagon Engineer, London Midland Region, Railway Executive (British Railways).

- * **D^r M. Schantl**, Secrétaire général des Chemins de fer fédéraux autrichiens. (*Excused.*)

** **E. Bezpalec**, Ministerialrat, Chemins de fer Fédéraux autrichiens.

** **E. Seidler**, Directeur Général des Chemins de fer Fédéraux autrichiens.

- * **H. E. Stokke**, Directeur général des Chemins de fer de l'Etat norvégien.

** **E. Heiberg**, Directeur du Service du Mouvement des Chemins de fer de l'Etat norvégien.

** **O. Holtmon**, Directeur du Service de l'Exploitation des Chemins de fer de l'Etat norvégien.

** **L. Skare**, Directeur du Service des Finances des Chemins de fer de l'Etat norvégien.

- * **S. E. Tarraf Aly Pacha**, Ministre des Communications d'Egypte. (*Excused.*)

** **K. Salah**, Secrétaire à la Légation d'Egypte à Stockholm.

- * **E. D. Terkelsen**, Directeur général des Chemins de fer de l'Etat danois.

** **A. Kristensen**, Inspecteur principal de l'Exploitation des Chemins de fer de l'Etat danois.

** **J. Larsen**, Chef de bureau aux Chemins de fer de l'Etat danois.

- * **J. C. L. Train**, Member of the Railway Executive (British Railways).

** **J. H. Fraser**, Chief Officer Engineering (Signal and Telecommunications), Railway Executive (British Railways).

** **H. H. Phillips**, Chief Commercial Officer, Railway Executive (British Railways).

** **J. Taylor Thompson**, Civil Engineer, London Midland Region, Railway Executive (British Railways).

- * **Tuja**, Secrétaire général de l'Union Internationale des Chemins de fer. (*Excused.*)

** **G. Harrand**, Ingénieur en Chef à la S. N. C. détaché au Secrétariat Général de l'Union Internationale des Chemins de fer.

- * **E. Upmark**, Directeur général des Chemins de fer de l'Etat suédois.

** **A. Sjöberg**, Chief Research Economist Swedish State Railways. (*Reporter.*)

** **G. Holvid**, Chef de Division au Service de l'Exploitation, Trafic Marchandises, des Chemins de fer de l'Etat suédois. (*Secretary of the Local Organizing Commission*)

- * **H. van Galen Last**, Directeur général des Transports au Ministère des Transports et du Waterstaat (Pays-Bas).

- * **F. Perez Villamil**, Directeur adjoint du Réseau National des Chemins de fer espagnols.

** **J. Noguès**, Sous-Directeur du Réseau National des Chemins de fer espagnols.

- * **Lt.-Col. G. R. S. Wilson**, Chief Inspecting Officer of Railways, Ministry of Transport (Great Britain).

** **R. J. Walker**, Inspecting Officer of Railways, Ministry of Transport (Great Britain).

OBSERVERS (*Germany*) :

- D^r **Ottmann**, Directeur des Affaires Générales à la Direction Générale de la Deutsche Bundesbahn.

Dipl.-Ing. **R. Körner**, Conseiller ministériel à la Direction Générale de la Deutsche Bundesbahn.

SWEDISH LOCAL ORGANIZING COMMISSION

President :

- E. G. J. Upmark**, Directeur général des Chemins de fer de l'Etat Suédois.

Secretaries :

- N. Mård**, Chef du Service de la Publicité Commerciale des Chemins de fer de l'Etat Suédois.

G. Holvid, Chef de Division au Service de l'Exploitation, Trafic Marchandises, des Chemins de fer de l'Etat Suédois.

OTHER SWEDISH PERSONALITIES WHO ATTENDED THE MEETING.

en Andersson, Ministre des Communications de Suède.

Lundberg, Secrétaire général au Ministère Royal des Affaires Etrangères.

Åsbrink, Secrétaire général au Ministère Royal des Communications.

Hall, Chef de Section au Ministère Royal des Communications.

Callans, Chef de Section au Ministère Royal des Communications.

Tänneryd, Directeur à l'Administration des Ponts et Chaussées.

Fredrikson, Inspecteur des Chemins de fer à l'Administration des Ponts et Chaussées.

Ekberg, Inspecteur du Trafic par route à l'Administration des Ponts et Chaussées.

Thelander, Conseiller à la Cour suprême administrative.

Oredsson, Directeur général adjoint des Chemins de fer de l'Etat suédois.

Jonson, Directeur du Service de l'Exploitation, Trafic Marchandises, des Chemins de fer de l'Etat suédois.

Berger, Directeur du Service Commercial, Trafic Marchandises, des Chemins de fer de l'Etat suédois.

Engström, Directeur adjoint du Service Commercial, Trafic Marchandises, des Chemins de fer de l'Etat suédois.

G. Lindskog, Directeur du Service Commercial, Trafic Voyageurs, des Chemins de fer de l'Etat suédois.

Thorsell, Directeur du Service des Affaires Economiques des Chemins de fer de l'Etat suédois.

Lundberg, Directeur adjoint au Service Technique de Signalisation des Chemins de fer de l'Etat suédois.

Carlberg, Ingénieur en Chef, expert des Chemins de fer de l'Etat suédois.

Danielson, Inspecteur en Chef de la Voie aux Chemins de fer de l'Etat suédois.

son Schmidt, C., Ingénieur en Chef, Reviseur-Contrôleur des Chemins de fer de l'Etat suédois.

Sundberg, Inspecteur en Chef de l'Exploitation aux Chemins de fer de l'Etat suédois.

S. Lundgren, Ingénieur principal au Service Technique de l'Electrification des Chemins de fer de l'Etat suédois.

G. Hasselblad, Ingénieur de la Signalisation aux Chemins de fer de l'Etat suédois.

S. Persson, Inspecteur de la Sécurité aux Chemins de fer de l'Etat suédois.

H. Larsson, Chef de Division au Service de l'Exploitation, Trafic Marchandises, des Chemins de fer de l'Etat suédois.

T. Thorhag, Chef de Division au Service des Essais et de la Rationalisation des Chemins de fer de l'Etat suédois.

M. Öster, Actuaire principal au Service des Affaires Economiques des Chemins de fer de l'Etat suédois.

H. Tillinger, Chef de Région aux Chemins de fer de l'Etat suédois.

Å. Nerell, Président de l'Union des Chemins de fer privés de Suède.

E. Kjebon, Directeur de la Société SLAB, affiliée aux Chemins de fer de l'Etat suédois.

S. Johansson, Directeur adjoint de la Société SLAB, affiliée aux Chemins de fer de l'Etat suédois.

A. Rydbergh, Directeur des Chemins de fer SRJ.

REPORTERS.

D^r M. G. de Bruin, Directeur Général de la N. V. Van Gend & Loos (Pays-Bas).

A. Donizeau, Ingénieur en Chef, Chef du Service de la Voie et des Bâtiments de la Région de l'Ouest de la Société Nationale des Chemins de fer français.

G. Matthews, Operating Superintendent, Western Region, British Railways. (*Excused.*) (*)

(*) Represented at Stockholm by Mr. J. McCreadie, Operating Superintendent, Scottish Region, British Railways.

G. Moulart, Ingénieur en Chef à la Direction de l'Exploitation de la Société Nationale des Chemins de fer belges.

F. Sauvageat, Adjoint au Chef de l'Exploitation du 1^{er} Arrondissement des Chemins de fer fédéraux suisses.

A. Sjöberg, Chief Research Economist, Swedish State Railways.

S. Williams, Signal and Telecommunications Engineer, London Midland Region, British Railways.

BUREAU OF THE SECTIONS.**SECTION I. — Way and Works.***President :*

Robert Lévi, Directeur des Installations fixes de la Société Nationale des Chemins de fer français. (Membre de la Commission Permanente.)

Vice-Presidents :

G. di Raimondo, Directeur général des Chemins de fer de l'Etat italien. (Membre de la Commission Permanente.)

H. E. Stokke, Directeur général des Chemins de fer de l'Etat norvégien. (Membre de la Commission Permanente.)

Principal Secretary :

J. Dubus, Ingénieur en chef à la Société Nationale des Chemins de fer belges.

Secretaries :

Unal, Ingénieur à la Division de la Voie et des Travaux de la Région de la Méditerranée de la Société Nationale des Chemins de fer français.

J. H. Glendinning, District engineer, Peterborough, Eastern Region, British Railways.

SECTION III. — Working.*President :*

A. A. Harrison, Executive Officer (Road Transport), The Railway Executive, British Railways.

Vice-Presidents :

F. Q. den Hollander, Président des Chemins de fer néerlandais. (Membre de la Commission Permanente.)

Lehtinen, Directeur général adjoint des Chemins de fer de l'Etat de Finlande. (Membre de la Commission Permanente.)

Principal Secretary :

Uytborck, Ingénieur à la Société Nationale des Chemins de fer belges.

Secretaries :

Surleau, Inspecteur à la Direction Commerciale de la Société Nationale des Chemins de fer français.

P. Punt, Secretarial Assistant, Paris Office, British Railways.

SECTION IV. — General.*President :*

E. G. J. Upmark, Directeur général de l'Administration Royale des Chemins de fer de l'Etat suédois. (Membre de la Commission Permanente.)

Vice-President :

J.-M. Garcia-Lomas, Directeur du Réseau National des Chemins de fer espagnols. (Membre de la Commission Permanente.)

E. D. Terkelsen, Directeur général des Chemins de fer de l'Etat danois. (Membre de la Commission Permanente.)

Principal Secretary :

H. Lenfant, Ingénieur principal à la Société Nationale des Chemins de fer belges.

Secretaries :

Bény, Inspecteur principal à la Direction du Mouvement de la Société Nationale des Chemins de fer français.

C. E. Whitworth, Assistant to Chief Officer (Administration), The Railway Executive, British Railways.

List of questions selected for the Agenda of the 16th Session (London 1954).

1st Section :

WAY AND WORKS.

1. — What are the present tendencies relating to the organization of the maintenance of the permanent way : methods of determination of the works to be done and in particular, possibilities of the use of detecting-recording coaches; planning of the works, effects of mechanization; importance of the side-tracks for the movement of the gangs and the mechanical devices.

Economic and financial aspect.

2. — Modernization of station buildings and methods employed in financing modernization projects.

Standardization of unit construction applied to railway buildings.

2nd Section :

LOCOMOTIVES AND ROLLING STOCK.

3. — Technical and economic investigation of the basic characteristics of electric traction systems now in use, with a view to decide whether, and to what extent, there are relevant reasons for preferring one system to another.

In particular are there any reasons in regard to :

a) power supply;

b) overhead line and fixed track installations;

c) motive power units;

d) working and maintenance costs.

4. — Means and methods to improve the efficiency of steam locomotive :

a) increase of the steam pressure;

b) types of grates;

c) superheating of the steam;

d) preheating of the feeding water;

e) feed water treatment.

3rd Section :

WORKING.

5. — Radiophonic communications in railway working.

6. — *a)* Remote operating of signal boxes; technical realizations, working orders.

b) Electric working and control devices for hinged and « flexible » points and switches.

Control of accidental trailing of the switch blade.

4th Section :**GENERAL.**

7. — Modernization of the method to be adopted for recruiting the staff in number and qualifications.

Harmonious renewal of the various ranks, indispensable reserve lists, ratio of the permanent and temporary staff.

Part played by the medical service in the recruiting.

8. — Determination of the principles of geographical and functional organization of a railway system.

Simplification and retrenchment of the Administration of Railways.

9. — Railway participation in road transport undertakings.

5th Section :**LIGHT RAILWAYS
AND COLONIAL RAILWAYS.**

10. — Wear of rails on curves :

a) running effects of locomotives and motor coaches with motor bogies;

b) characteristics of track-laying on curve and details of the rolling stock liable to cause premature wear of the rails;

c) results of the investigations made and proposed remedies.

Use of rail-lubrication processes.

11. — Protection of overhead lines, substations, locomotives and motor-coaches against accidents of electric nature (excess voltage, overloads, short-circuits, lightning).

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

Enlarged Meeting of the Permanent Commission of Stockholm

(9th to 11th June 1952.)

Summary of sectional proceedings.

SECTION I. — Way and Works.

QUESTION I.

A. — What are the new safety measures taken for level crossing of railway tracks by the road in respect of the density, high tonnage and speed of the road traffic?

In particular automatic signalling and closing of level crossings without keepers, worked by the trains themselves.

Technical and statistical investigation in order to ascertain the relative safety of :

1° level crossings with keepers, with the different devices to announce the arrival of the trains to the keepers;

2° level crossings without keepers :

a) without any self-acting device announcing the arrival of trains;

b) with automatic signalling for the road-users;

c) with automatic signalling completed by half- or entire gates.

B. — Cases of level crossing of railway tracks by a road with a railway (urban or suburban) running alongside.

Preliminary documents.

Report (*America [North and South], Australia [Commonwealth of], Burma, China, Ceylon, Egypt, India, Irak, Iran, Irish Free State, New Zealand, Pakistan, South Africa, Sudan, United Kingdom of Great Britain and Northern Ireland and the territories for whose international relations the United Kingdom is responsible*), by Messrs. G. MATTHEWS and G. WILLIAMS. (See *Bulletin* for March 1952, p. 177.)

Report (*Austria, Belgium and Colony,*

Bulgaria, Czechoslovakia, Denmark, Finland, France and Overseas Territories, Germany, Greece, Hungary, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal and Colonies, Rumania, Spain, Sweden, Switzerland, Syria, Turkey and Yugoslavia), by A. DONIZEAU. (See *Bulletin* for May 1952, p. 343.)

Supplement to Mr. DONIZEAU's Report. (See *Bulletin* for June 1952, p. 529.)

Special Report, by A. DONIZEAU. (See *Bulletin* for June 1952, p. 493.)

SECTIONAL DISCUSSION.

Meeting of the 9th June 1952 (afternoon).

Mr. Robert LÉVY, *Directeur des Installations fixes de la Société Nationale des Chemins de fer français, in the Chair.*

THE PRESIDENT opened the meeting at 2 p.m. After welcoming the Delegates, he told them that the Permanent Commission had proposed the constitution of the Bureau of the Section as follows :

as *Vice-Presidents* :

Mr. G. DI RAIMONDO, General Manager of the Italian State Railways, and

Mr. H. E. STOKKE, General Manager of the Norwegian State Railways;

as *Chief Secretary* :

Mr. J. DUBUS, Chief Engineer of the Belgian National Railways;

as *Secretaries* :

Mr. UNAL, Engineer of the Way & Works Department of the Mediterranean Region of the French National Railways, and

Mr. J. H. GLENDINNING, District Engineer, Peterborough, Eastern Region, British Railways.

— *The Meeting signified its approval.*

THE PRESIDENT, before opening the discussion, stressed the importance of the subject on the agenda and expressed the opinion that there is no gain saying the fact that the question of level crossings is very controversial in all countries.

He recommended that the delegates should not give too absolute a character to any affirmations they might make.

The Assembly should draft universally applicable summaries of a sufficiently general nature so as not to throw any doubts on any technique that had proved satisfactory in any country even if in another country the same technique had been found to have its drawbacks. Finally before beginning, the PRESIDENT wanted to congratulate the Reporters who had carried out a difficult and at times graceless task very objectively, and he therefore thanked Mr. G. MATTHEWS, who was not present at the Meeting, and Mr. WILLIAMS.

He then thanked Mr. DONIZEAU, who in addition to his duties as reporter, had been good enough to undertake the compilation of the special report.

Regarding the method of carrying out the work, the PRESIDENT suggested making an immediate start on the different points proposed as summaries with the proviso that certain details in the reports could be gone into as occasion arose during the discussions.

— *Agreed.*

QUESTION I-A.

What are the new safety measures taken for level crossing of railway tracks by the road in respect of the density, high tonnage and speed of the road traffic?

THE PRESIDENT asked Messrs. DUBUS and GLENDINNING to read in turn the

French and English texts of the summaries from the Special Report.

Summary No. 1 :

1. The changes that have occurred in the characters of the road traffic in modern times, owing to the development of motor traffic and the progressive increase in the number, speed, and tonnage of such vehicles, mean that the way level crossings are operated and equipped must be carefully studied by the Railway Administrations and public authorities in order to make the necessary modifications.

In endeavouring to improve the safety at level crossings, financial considerations are of great importance, as the general interest makes it necessary to see that the capital available is spent to the best purpose, as always. These considerations make it necessary for the Railway Administrations and authorities controlling them to grade as far as possible the way level crossings are equipped according to the possible risks, and on the other hand to make every possible economy without hazarding the necessary degree of safety at those level crossings where such economies are possible in order to finance the cost of equipping more elaborately other more dangerous level crossings.

In any case, it is unjust that the financial cost involved in improving the standard of safety at level crossings should be borne by the railway alone.

Mr. BARRINGTON-WARD (*British Railways*) stressed the special position as regards private level crossings on the British Railways, mentioned in Summary No. 9. The latter, built in the early days of the railway to enable owners of land divided in two by the new lines to get from one portion of their land to the other had a tendency to develop into public crossings. In certain cases, the land had since been sold and parcelled up; villages and even towns had sprung up which had completely changed the

position. Mr. BARRINGTON-WARD wanted to know what the position was in other countries.

Mr. DONIZEAU (*Special Reporter*) agreed that from an examination of the information sent in, the position was not so serious in any other country as it was for the British Railways.

THE PRESIDENT thought that when Summary No. 9 was being discussed the text could be amended and reinforced if necessary.

Mr. BARRINGTON-WARD agreed to this and added that on the British Railways there were many more accidents on private level crossings than on public level crossings.

— *Summary No. 1 was adopted.*

Summary No. 2 :

2. In general, substantial improvements have been made in many countries since the Cairo Congress regarding safety at level crossings, particularly as regards :

— the facilities given to road users to warn them of the existence of all kinds of level crossings and to enable them to see when the gates are shut at level crossings with keepers;

— the methods of advising the arrival of trains given to the keepers at level crossings with keepers;

— improvements to the types of gates.

The regulations of the Geneva Protocol regarding signalling the presence of level crossings have been supported by a very large number of countries, which results in an improved standard of safety both for the usual road users and for road users making international journeys.

Mr. CRÉANGE (*Ministry of Public Works and Transport, France*) reported in this

connection that the Geneva Committee was still considering this question.

Delegates to Geneva had asked if there was any connection between their deliberations and those of Stockholm.

THE PRESIDENT, replying to Mr. CRÉANGE stated that the Meeting would take into account the demands formulated by the Geneva Committee. He added that in any case the International Railway Congress Association had no power to formulate any recommendations to the different countries, but only to set out general summaries corresponding to the general opinion of members of the Association.

He hoped that these summaries would prove of use to the Geneva Committee or the International Railway Union.

Mr. CRÉANGE agreed with this.

Mr. WILLIAMS (*British Railways, Reporter*), wanted to make an alteration to the English text of the third paragraph of Summary No. 2. He suggested replacing « the arrival of trains » by « the approach of trains » and also making an alteration in the last paragraph by substituting « regarding the indication of the presence... » to « regarding signalling the presence... ».

— *With these alterations to the English text, Summary No. 2 was adopted.*

Summary No. 3 :

3. There is now available very reliable equipment which enables an automatic signal giving warning of the approach of a train to be given to road users coming up to level crossings without keepers. Such equip-

ment can be installed and operated relatively economically, particularly if no positive line clear light is included, as this involves using a large amount of current and the obligatory use of the power from local supply.

Mr. BARRINGTON-WARD asked who was going to pay for these devices : the railways or the road ?

THE PRESIDENT, after Mr. DONIZEAU (*Special Reporter*) had given some examples of the cases which might occur, thought that the reply to this question could be found in the second paragraph of Summary No. 8 which deals with the cost of improving the safety.

To the question of the eventual priority of the road raised by Mr. RENDA (*Italian State Railways*), the PRESIDENT pointed out that though the road might have been anterior to the railways, the railway was also anterior to motor traffic. (*Agreed.*)

This might perhaps be a point which should be added in order to accentuate the remarks in favour of the road bearing some of the costs.

Mr. RENDA agreed.

Colonel WILSON (*Ministry of Transport, Great Britain*) stated that the British road authorities were of the opinion that if the light signal only changed to red very rarely (less than 6 or 7 times an hour), motor drivers tended to overlook it. In such cases, the public authorities would not authorize the use of light signals. He insisted on the fact that the British Railways are not free to decide to install light signals without previously consulting the road authorities.

Having made this clear, he had no objections to raise regarding the wording of Summary No. 3.

THE PRESIDENT pointed out that point 5 listed a certain number of precautions to be taken in order to get the signals properly obeyed.

Mr. DEVOS (*Belgian National Light Railways*) thought it dangerous to allow the use of installations which did not give a light signal for line clear. If anything went wrong there was absolutely no difference between a level crossing with signals and one without.

Mr. DONIZEAU was of the opinion that when there was no line clear signal, there should be some difference in the distant signal to show whether the level crossing without a keeper had signals or not.

Mr. DEVOS wished the existing signals which were well known to the public and to children to be retained and not complicated by other indications.

THE PRESIDENT suggested returning to this point in the discussions on Summary No. 6 and reported that in the United States, according to the statistics there were 26 000 level crossings with automatic signalling at which no line clear indication was given.

Mr. RENDA then read the following text drafted by the Working Group at Geneva :

« *Standardization of the automatic signalling systems now used :*

» At the present time different automatic signalling systems are used,

» The Working Group, taking into account the work now being done by a Group of Experts charged with studying the standardization of road signals on a world wide scale, considered that a standardization of automatic signalling in Europe was an essential problem and its solution a matter of urgency.

» The Working Group has come to an agreement on the following text which takes into account the dispositions contained in the proposed convention drawn up by the above Group of Experts :

» a) when automatic signals fitted with winking lights are installed at level crossings, these signals should give a warning of the approach of a train by means of two red lights, sited horizontally and winking alternately. When no special measures are taken to assure safety at the level crossing should anything go wrong with the automatic signalling, this latter should be completed by a yellow winking light to signal any breakdown;

» b) the two red winking lights mean that road users must not pass (absolute stop) ».

THE PRESIDENT thanked Mr. RENDA who had presided over the Working Group of the U. I. C., after which *Summary No. 3 was adopted.*

Summary No. 4 :

4. Apart from the above considerations of economy, if an exception is made of level crossings with keepers protected by signals with mutual interlocking between such signals and the gates and train signals, when the train is stopped if the keeper makes any mistake, the general introduction of which would lead to serious drawbacks, both financial ones and practical ones as regards the flow of road traffic and the regularity of the trains, it can be stated that giving a danger signal at a level crossing without a keeper with automatic warning of the approach of trains is not only just as safe but even safer than having the gates closed by a keeper in the case of a level crossing with a keeper,

Mr. CRÉANGE asked for the word « safety » to be replaced by the term « Degree of certainty ». After an exchange of opinions to elucidate the wording of Summary No. 4, an exchange of opinions in which Messrs. DONIZEAU, Colonel WILSON, NOGUÈS (*Spanish National Railways*), MCCREADIE (*British Railways*), BOUCIQUÉ (*Belgian National Railways*) took part, the PRESIDENT suggested that a Committee should redraft the French and English versions of Summary No. 4, taking all the remarks made into account. (*Agreed.*)

Summary No. 5 :

5. There remains a great deal to be done however to discipline road users, as the danger signal, in the case of automatic signalling, unlike a gate, at least when such a signal is merely a coloured light, is not a material obstacle preventing the level crossing being run onto. It is to be feared that unless such discipline improves, accidents at level crossings without keepers where there is automatic signalling, will have more serious consequences, although in making such a comparison we must not overlook the risk of accidents owing to a road vehicle running into the gates of a level crossing with a keeper and thereby blocking the line, when had there been no gates the vehicle might have crossed over without danger.

It appears that the addition of light automatic half-gates may cancel out the difference in the reactions of road users, according to whether they find themselves faced with the closed gates of a level crossing with a keeper of the automatic stop signal at a level crossing without a keeper. In addition, half-gates seem likely to lessen the special risks at double track crossings when the road user is tempted to cross as soon as one train has passed without considering another might be coming in the opposite direction.

It is extremely desirable that in view of the special case of such double crossings, as for all level crossings moreover where

there are no keepers, when cattle have to cross, the regulations should be clearly laid down and strictly enforced, wherever this is not yet done.

Mr. BARRINGTON-WARD stressed the fact that in Great Britain, it is a punishable offence to cross against the red light. Such an offence is considered serious and consequently is rarely committed.

Mr. CRÉANGE drew attention to the way flocks sometimes strayed alongside the track. In addition, the presence of a keeper reassures the parents of school-children, who may have to use the level crossing.

Mr. DONIZEAU stated that the problem raised by Mr. CRÉANGE was one with which many of the Administrations consulted were preoccupied.

He regretted the fact that in general the railway was burdened with the whole of the responsibility for safety whereas road traffic ran at sight.

Colonel WILSON reported that only two accidents in 1951 were due to running into the gates.

THE PRESIDENT regretted that serious accidents due to running into the gates had occurred in France.

— *Summary No. 5 was adopted*, as Mr. CRÉANGE did not insist upon completing it.

Summary No. 6 :

6. In view of the probability that the system without keepers with automatic signalling is likely to be extended, it is very desirable in order to make it easier for inter-

national traffic to know and observe the regulations, that uniformity should exist as regards the following points:

- type of signals;
- whether there is or is not a positive line clear indication;
- the exact meaning of the danger signal given (absolute stop or permissive stop);
- in the case of level crossings without keepers, the adoption of a road signal at a distance from the crossing showing whether the crossing in question is or is not equipped with automatic signalling;
- systematic use at the crossing itself of the St. Andrews Cross sign with a double cross in the case of double track line (or some other signal designed with the same object);
- definition of what the road user should do when anything is out of order.

THE PRESIDENT pointed out that the Section could not decide which was the most suitable arrangement to adopt as the choice of this solution depended not only on the opinion of the railway authorities but also on the authorities responsible for the road traffic.

Moreover as Mr. RENDA had reminded them, a standard formula applicable to all countries had been gone into at Geneva, and the question was being followed by the International Railway Union.

He suggested therefore that the Delegates should state whether they were in agreement regarding the wording of Summary No. 6 which expresses the wish that some standard device be achieved, merely giving the advantages and drawbacks of the various solutions suggested.

These would be reported in the Minutes; they could not be included in Summary No. 6.

Mr. MCCREADIE pointed out that the « Association of American Railroads »

had the same object and had laid down the principles upon which level crossing signals should be standardized; there was a tendency towards signalling by means of automatic lights and towards the suppression of the gates either wholly or partially.

Mr. WILLIAMS wished to know if we wanted to protect the railway or if we wanted to facilitate the passage of the road traffic.

THE PRESIDENT thought reference to the wording of the question would answer Mr. WILLIAMS's question.

Mr. WILLIAMS to sum up wanted to know who was going to stand the cost?

Mr. CRÉANGE thought there was no need to go too closely into the method of financing it; this was purely a question for the government, and special to each government.

THE PRESIDENT did not think Mr. CRÉANGE would find it out of place if we stated here that if a device was designed to facilitate the flow of road traffic, the railway should not have to bear the whole of its cost.

Mr. CRÉANGE saw no objection to this; it was for each government to decide.

THE PRESIDENT was of the opinion that the wording should be touched up a bit. For example, we might say : *« improvements to be made in the flow of road traffic might in certain cases justify the road services sharing in their cost ».*

Mr. RENDA reminded the meeting that the question of the free circulation of traffic was the object of a precise proposition of the Geneva Working Group, and gave a few details about the interval during which road traffic must stop.

THE PRESIDENT suggested that Mr. RENDA should take part in drafting the alterations to be made to the summaries. He asked Mr. DEVOS if the preference shown by the different countries for such and such a system should be stressed.

Mr. DEVOS did not think so. We must aim at co-ordination; obviously if the Meeting is in a position to find a common point of view, it should do so.

If on the international plane, it is possible to agree about the suppression of the green light signal, there would be no inconvenience at all as far as he could see.

— *Summary No. 6 was adopted.*

— The Meeting adjourned at 4.15, and met again at 4.30.

THE PRESIDENT asked the Meeting to go on to the examination of Summary No. 7.

Summary No. 7 :

7. Doing away with keepers is a definite source of economy. In addition, it is also of general interest in that labour is freed for use on more productive sections.

There are a fair number of cases in which the characteristics of the level crossing : amount and kind of road traffic, amount of railway traffic, visibility, enable such a crossing to be operated as a crossing without keeper without signals with sufficient safety. Regulations concerning keeping the view

open near level crossings are likely to facilitate the extension of this practice and also improve the safety.

The question of deciding whether it is possible to substitute on a large scale the system without keeper with automatic warning of the approach of trains to that of having a keeper should be gone into very carefully. At the present time, it does not appear possible to decide the upper limits at which such a substitution is applicable, as such limits vary according to the education and discipline of the road users; in countries where automatic warning of the approach of trains is not widely used, it appears advisable to fix such limits very prudently, as they can always be extended later on. Moreover, it appears that the addition of automatic half-gates makes it possible to extend these limits, especially in the case of double track crossings. Such half-gates should be very light so that there will not be any serious consequences if they are run into. The addition of automatic gates right across the road is still more satisfactory as regards the behaviour of the road users, but this raises very serious problems should anything go wrong with the installation, so that their general use appears impracticable; automatic gates also raise the problem of what kind of distant road signal should be used.

— *Adopted without comment.*

Summary No. 8 :

8. In the case of level crossings without keepers without signals, the installation of automatic signals giving warning of the approach of trains appears a solution to be recommended when an increase in the amount, speed and tonnage of the road traffic jeopardises the safety of the existing system and the problem cannot be solved in any other way, such as by reducing the speed of the road and railway traffic, increasing the visibility, undertaking various work such as cutting back banks, and introducing regulations about keeping the view clear at level crossings.

It is only just that the cost of improving the standard of safety, however this is done, should not be borne by the railway.

Mr. DONIZEAU suggested suppressing the last paragraph of Summary No. 8 and drafting a ninth summary. This Summary No. 9 would deal solely with the road services sharing in the cost of improvements not only to the safety but also to free circulation of the road traffic. (*Agreed.*)

At Mr. RENDA's request, it was also decided to *suppress the last paragraph of Summary No. 1.*

THE PRESIDENT resumed the discussion by stating that the Section agreed that only the first paragraph should be retained in the case of Summary No. 8 and a new summary drafted to cover all the information relative to the financial participation of the road services.

— *Summary No. 8 was adopted, the last paragraph being deleted.*

THE PRESIDENT then went on to the examination of Summary No. 9 which became the new Summary No. 10.

Summary No. 9 (new No. 10) :

9. Apart from the British Railways, where there are a great many private level crossings leading to numerous complications, it does not appear that such crossings cause any great difficulties to the different Railway Administrations.

It appears desirable however that their number should not be increased. If new private level crossings are made, it appears essential to stipulate that the visibility should be at least as good as that required at level crossings without keepers without automatic signalling.

If they are to be used by any specially large vehicles, it is to be recommended that the users should give the Railway Administration preliminary warning.

Finally, it is essential that there should be good discipline amongst those using private level crossings as regards their obligations to close and lock the gate and indicate the presence of such a crossing by a sign clearly indicating its character.

THE PRESIDENT suggested a modification to the wording of this summary in order to stress the drawbacks resulting from changes in the surroundings of a level crossing that was formerly a private crossing, particularly in Great Britain. There was an exchange of views on this point.

MESSRS. LARSEN (*Danish State Railways*) and LUNDGREN (*Swedish State Railways*) reported that there existed a similar situation in their countries as well.

Colonel WILSON wanted the paragraph relating to the creation of new private level crossings to be completed by « and to take if needs be certain protective measures in well determined cases at the expense of the user ».

— *Adopted.*

The question of signalling private level crossings by a notice clearly indicating their character was also gone into by MESSRS. BARRINGTON-WARD, LARSEN and LUNDGREN.

THE PRESIDENT answering a point raised by Mr. HARVEY (*British Railways*) about the obligation in America in particular, for train drivers to give a warning of their approach (whistle or other warning) gave the principles adopted in France in this connection : intermittent blasts on the train whistle. In order to satisfy

Messrs. BARRINGTON-WARD, LARSEN and LUNDGREN, he thought the last paragraph should be limited to :

« Finally, it is recommended that the obligations to keep the gates closed and padlocked be strictly enforced. »

— *Agreed.*

— *The new Summary No. 10 was adopted with this slight modifications.*

Summary No. 10 (new No. 11) :

10. The methods now used by the different Administrations to prepare statistics of accidents at level crossings make it very hard to come to any conclusions about them. Thus, whilst recognising the complexity of the question, the Commission expresses a wish that the uniform preparation of as detailed as possible statistical tables should be studied.

THE PRESIDENT was of the opinion that the examination of this difficult question of accident statistics should be put off until the next meeting; he hoped it would be possible to arrive at certain conclusions during the meeting on Tuesday.

Mr. DONIZEAU wished to add a few words about questions on which he had some doubts during the interpretation of the statistics.

First of all, it is a fact that the character of accidents occurring at level crossings is very far from uniform in the statistics compiled. There are in fact very few statistics which completely agreed with the questionnaire; there were a few, but those which were complete were generally not compiled on uniform bases.

He quoted the following examples : the Swedish State Railways supplied very

complete statistics, but Mr. DONIZEAU had received confirmation that day that these included every accident occurring at a level crossing, including collisions with the gates which did not cause any particular damage. The Special Reporter also had the impression that the Belgian statistics, which were also very complete, were much more exclusive as to the character of the accidents, i. e. they did not include any accidents which did not occasion much damage. The result is that it is very difficult to draw any conclusion from the number of accidents quoted.

Mr. MCCREADIE explained how the statistics were prepared in America.

Mr. DONIZEAU commented on the idea of the « traffic moment », the product of the number of trains multiplied by the number of road vehicles, pointing out the effect of the way these were spread out in time.

He stressed the difficulty of comparing the value of different equipment from the safety point of view, and quoted the following example in this connection : the same road crosses the same railway line at two places quite close together. From the point of view of the distribution and amount of road and railway traffic, the two level crossings are identical. One has good visibility, the other has not.

If both are left without warning equipment, it is obvious that the first level crossing is much less dangerous than the second; if they are both equipped with warning installations, they again become identical.

After a comment by Mr. RENDA, the

PRESIDENT adjourned the Meeting at 5.35 p.m., fixing the time of the next days meeting at 8.30 for the visit to the level crossing with automatic signalling organized by the Swedish Railways.

Meeting of the 10th June 1952.

President : M. Robert LÉVI.

— The Meeting opened at 2.30 p.m.

THE PRESIDENT first of all thanked the Swedish Railways for the interesting visit organized that morning. He then proposed that the Section should proceed with the examination of the wording of the summaries which had been redrafted during the course of yesterday's meeting.

Summary No. 1.

THE PRESIDENT recalled that Summary No. 1 had been adopted in its entirety, but that after the discussions had taken place it was found better to devote a special summary to the cases in which road services should be asked to share in the costs. The last paragraph of Summary No. 1 was therefore deleted, and the final text is as follows :

« 1. The changes that have occurred in the character of the road traffic in modern times, owing to the development of motor traffic and the progressive increase in the number, speed, and tonnage of such vehicles, mean that the way level crossings are operated and equipped must be carefully studied by the Railway Administrations and public authorities in order to make the necessary modifications.

« In endeavouring to improve the

safety at level crossings, financial considerations are of great importance, as the general interest makes it necessary to see that the capital available is spent to the best purpose, as always. These considerations make it necessary for the Railway Administrations and authorities controlling them to grade as far as possible, the way level crossings are equipped according to the possible risks, and on the other hand to make every possible economy without hazarding the necessary degree of safety at those level crossings where such economies are possible in order to finance the cost of equipping more elaborately other more dangerous level crossings. »

— *Approved.*

Summary No. 2.

THE PRESIDENT reported that Summary No. 2 was adopted with the reservation that there should be a slight modification : in the third paragraph it had been decided to replace the words : « *arrival* of trains » by « *approach* of trains » so that the final text of this summary became :

« 2. In general, substantial improvements have been made in many countries since the Cairo Congress regarding safety at level crossings, particularly as regards :

« — the facilities given to road users to warn them of the existence of all kinds of level crossings and to enable them to see when the gates are shut at level crossings with keepers;

« — the methods of advising the approach of trains given to the keepers at level crossings with keepers;

« — improvements to the types of gates.

« The regulations of the Geneva Protocol regarding the indication of the presence of level crossings have been supported by a very large number of countries, which results in an improved standard of safety both for the usual road users and for road users making international journeys. »

— *Approved.*

In the English text, in the fifth paragraph the word « signalling » has been replaced by « indication ».

— *Approved.*

Summary No. 3.

— *Original text adopted without modifications.*

Summary No. 4.

THE PRESIDENT reminded the meeting that this summary was the subject of an exchange of opinions which brought out the need for considerable modification of the text.

He read the new text suggested :

« 4. Apart from the above mentioned considerations of economy, with the exception of the case of level crossings with keepers protected by signals with mutual interlocking of the latter and the gates, a system in which any mistake on the part of the keeper results in the train being stopped, the general use of which would give rise to serious difficulties, both financial ones and in connection with the free flow of the road traffic and the

regularity of the trains, it can be affirmed that the *warning of the approach of a train is given by the presentation of the danger signal at the level crossing without keeper with automatic signalling with a degree of certitude at least equal to and probably greater than the presence of the closed gates at a level crossing with a keeper.* »

Colonel WILSON and Mr. TAYLOR THOMPSON (*British Railways*) considered that it would be advisable to divide up this summary.

— *After various comments, Summary No. 4 was adopted in the following form :*

« 4. Apart from the above considerations of economy, the warning of the approach of trains is given by an automatic signal with a degree of certainty at least equal to or even superior to that given by gates closed by a keeper because the latter involves the possibility of the failure of the human element, whereas the automatic signal can be arranged so that the failure is on the side of safety.

« An exception should be made, however, of level crossings with keepers protected by signals with mutual interlocking between such signals and the gates in which case the train is stopped if the keeper makes any mistake which would lead to serious drawbacks financial and practical as regards the flow of road traffic and the regularity of the trains. »

Summaries Nos. 5, 6 and 7.

— *Adopted without modification.*

Summary No. 8.

THE PRESIDENT pointed out that the

last paragraph of Summary No. 8 was suppressed for the same reasons that led to the suppression of the last paragraph of Summary No. 1, so that the text became :

« 8. In the case of level crossings without keepers without signals, the installation of automatic signals giving warning of the approach of trains appears a solution to be recommended when an increase in the amount, speed and tonnage of the road traffic jeopardises the safety of the existing system and the problem cannot be solved in any other way, such as by reducing the speed of the road and railway traffic, increasing the visibility, undertaking various work such as cutting back banks and introducing regulations about keeping the view clear at level crossings. »

— *Approved.*

Summary No. 9 (new).

THE PRESIDENT read this new summary which deals with the question of the participation of the road services :

« 9. If the installation of automatic signalling device indicating the approach of trains is required to improve the security on account of the change of the character of road traffic, it is only fair that the expenses of such installation should largely be borne by the road authorities.

« Similarly, if such installation is to expedite the road traffic it is likewise only fair that the road authorities should contribute to the expense of this installation. »

Colonel WILSON first of all raised the question of the translation. It was

decided to replace in the English text the term « largely » by « the major part ». In addition, like Mr. CRÉANGE, as representative of the British Government, he considered that it was for the Government to decide how the costs should be divided.

THE PRESIDENT declared in conclusion that Summary 9 was approved with the reservations made by Mr. CRÉANGE and Colonel WILSON.

New Summary No. 10 (old Summary No. 9).

THE PRESIDENT pointed out that the beginning of the summary had been modified in order to stress the drawbacks of level crossings in certain countries, especially in Great Britain, owing to the changes that had occurred in the character of the population and the density of road traffic.

New wording suggested :

« 10. There are cases especially on British Railways where because of the change which has taken place in the population and density and character of road traffic, private level crossings raise very complicated questions.

« In most of the other Administrations it would seem, on the contrary, that level crossings of this category do not raise any great difficulties.

« It appears desirable, however, not to increase the number of these crossings. Where new private level crossings are made it seems essential to insist that they should have at least the same degree of visibility as level crossings without keepers and without automatic signalling.

« In the case of specially large transport it is recommended that the users of the level crossing should give prior advice to the Railway Administration before using the crossing.

« It is also recommended to insist on rigid adherence to all obligations on the part of the users with regard to padlocking of gates. »

— *This wording was adopted after the third paragraph had been modified as follows :*

« It appears desirable, however, not to increase the number of these crossings. Where new private level crossings are made it seems essential to insist that they should have at least the same degree of visibility as level crossings without keepers and without automatic signalling, and to take appropriate security measures in specially agreed cases at the expense of the road user. »

The final text of Summary No. 10 therefore reads :

« 10. There are cases especially on British Railways where because of the change which has taken place in the population and density and character of road traffic, private level crossings raise very complicated questions.

« In most of the other Administrations it would seem on the contrary that level crossings of this category do not raise any great difficulties.

« It appears desirable, however, not to increase the number of these crossings. Where new private level crossings are made it seems essential to insist that they should have at least the same degree of visibility as level crossings without

keepers and without automatic signalling, and to take appropriate security measures in specially agreed cases at the expense of the road user.

« In the case of heavy road vehicles it is recommended that the users of the level crossings should give prior advice to the Railway Administration before using the crossing.

« It is also recommended to insist on rigid adherence to all obligations on the part of the users with regard to padlocking of gates. »

New Summary 11 (old Summary 10).

THE PRESIDENT reminded the Meeting, that this summary reached at the end of yesterday's meeting deals with the preparation of accident statistics. First of all, he wished to know the opinion of the Section on the text itself, and proposed to discuss thereafter the most satisfactory ways of obtaining such statistics, though this was outside the written text of the summaries.

Old Summary No. 10 (now No. 11) was then read :

11. The methods now used by the different Administrations to prepare statistics of accidents at level crossings make it very hard to come to any conclusions about them. Thus, whilst recognising the complexity of the question, the Commission expresses a wish that the uniform preparation of as detailed as possible statistical tables should be studied.

Mr. RENDA thought it would be valuable to draw from the present discussion on level crossing statistics the most useful elements needed to complete the statistics required of the railways, as proposed to the U. I. C. at the last meeting at Lau-

sanne. These statistics could be completed with the object of getting more precise information for the benefit of the railways on the different systems of equipping level crossings according to the railway and road traffic conditions.

The proposal before the U. I. C. was concerned solely with level crossing accidents, but as Mr. DONIZEAU had suggested at the previous meeting to generalize the equipment of level crossings in connection with the railway situation, Mr. RENDA thought it would be useful, if the Union agreed, to put before the U. I. C. a proposal to complete these statistics.

THE PRESIDENT asked the Meeting if they were agreeable to this procedure? (*Agreed.*)

— *The text of Summary No. 11 (old No. 10) was adopted.*

THE PRESIDENT proposed to go on to the examination of Question I-B and then to return to certain points in connection with Summary 11 so as to obtain if possible summaries which Mr. RENDA could put before the meetings of the U. I. C.

QUESTION I-B.

Cases of level crossing of railway tracks by a road with a railway (urban or suburban) running alongside.

The problem of a level crossing at which an urban or suburban line runs alongside the road seems to have been dealt with on more or less the same lines in the different countries. In principle, the level crossings in question have keepers.

If the urban or suburban railway does

not run on sight, the crossing is exactly the same as that of the crossing of two railway lines, priority being given in principle to the main line trains.

If the urban or suburban line runs on sight at the level crossing, this is usually treated just like an ordinary level crossing, which is protected if necessary by signals on the line. In certain cases, derailing points have been fitted on the secondary line to protect the crossing when closed.

The enquiry only revealed very rare instances of level crossings without keepers with automatic signalling at which an urban or suburban line ran alongside the road. No particular measures appear to have been taken in connection with such level crossings.

Mr. DEVOS wanted to know what was meant in paragraph 3 by the expression « *In certain cases* derailing points have been fitted... ».

Mr. DONIZEAU reported that certain Administrations had stated that they had installed derailing switches without however going into details. The information received on this point was rather summary. The questionnaire itself did not devote much space to Question I-B and Mr. DONIZEAU stated that he did the best he could with the replies received, though they did not make it possible to be very precise.

In this connection, he thinks that certain railways consider they must take very effective steps to protect the crossing, whereas others are content with more ordinary measures. It is possible to go very far in this connection, exactly like protecting the outlet from a siding onto a main line, it is possible just to have a stop, or a derailing device, or a safety dead-end. The whole idea is that different steps are taken. It is not possible to

give a generally applicable ruling from the replies received.

Mr. HOENS (*Belgian National Light Railways*) asked if this was to be taken as an exceptional case.

Mr. DONIZEAU was of the opinion that from the replies received it was clearly exceptional. That was the conclusion he had come to from going through the replies.

Mr. DEVOS stated he was satisfied with this explanation.

— *This Summary was adopted in principle by the Meeting.*

There was however the question of how the expression « urban or suburban railway » was to be understood and translated. After an exchange of opinions, it was decided to modify the text by saying « when this is followed by an urban or suburban railway or generally speaking by a secondary railway », the latter expression alone being employed afterwards. In the English text, the words « urban and suburban » were to be replaced by « light railways and tramways ».

— *The text finally adopted was as follows :*

QUESTION I-B.

« The problem of a level crossing at which a light railway or a tramway runs alongside the road seems to have been dealt with on more or less the same lines in the different countries. In principle, the level crossings in question have keepers.

« If the light railway or tramway does not run on sight, the crossing is exactly the same as that of the crossing of two railway lines, priority being given in principle to the main line trains.

« If the light railway or tramway line runs on sight at the level crossing, this is usually treated just like an ordinary level crossing, which is protected if necessary by signals on the line. In certain cases, derailing points have been fitted on the light railway or tramway line to protect the crossing when closed.

« The enquiry only revealed very rare instances of level crossings without keepers with automatic signalling at which a light railway or tramway line ran alongside the road. No particular measures appear to have been taken in connection with such level crossings. »

Mr. CARLBERG (*Swedish State Railways*) wished to return to a point in connection with Summary No. 8 without however asking for any modification to be made in the wording. It is not always possible to improve the visibility, especially in the case of private level crossings because the hedges that need cutting down belong to a third party.

In addition, the regulations are observed to a varying degree. He would like the summary to recommend educating the public as much as the driver.

This point was the subject of an exchange of opinions between the PRESIDENT, Mr. DONIZEAU and certain English delegates, as a result of which the PRESIDENT suggested drafting a new Summary No. 11 dealing with the precautions to be taken by the public and drivers of vehicles approaching level crossings without gates.

— The Meeting adjourned at 4.05 p.m. to enable the Special Reporter Mr. DONIZEAU to polish the texts, and was resumed at 4.35 p.m.

The redrafted summaries were read, and the *new Summary No. 11* :

« 11. In general it is recommended that special consideration should be given to the methods adopted for the education of the public to ensure that drivers of all vehicles should approach and cross level crossings with care. »

— *Adopted.*

— The former Summary No. 11 now becomes Summary No. 12.

THE PRESIDENT proposed returning to the question of statistics and suggested indicating the desiderata which Mr. RENDA could put before the Sub-Committee of the U. I. C.

Mr. MCCREADIE would like to see the following points elucidated in connection with accidents at level crossings :

- 1) date of the accident;
- 2) description of the type of road vehicle;
- 3) description of the train;
- 4) nature or kind of accident, whether it was the road vehicle which was run into by the train or vice-versa;
- 5) time at which the accident occurred;
- 6) method adopted to protect the level crossing;
- 7) atmospheric conditions.

Mr. TRAIN (*British Railways*) wanted the description of the road traffic and the line to be added.

Mr. WILLIAMS wanted a statement as to whether all the protective devices installed were working normally at the time of the accident.

Mr. BOUCIQUÉ thought it would be useful to draw attention to a definition of the traffic moment, an idea which cannot be neglected. It was essential that everyone should mean the same thing by this and that there should be agreement on the types of vehicles to be included in the count.

Mr. DONIZEAU referred to the table of American statistics given in Messrs. MATTHEWS and WILLIAMS report and insisted on the idea of « *comparable* or *sufficiently comparable* categories of level crossings », though he recognized the difficulties to be surmounted.

THE PRESIDENT declared that the work of the Section could now be taken as completed, and wished to thank the Meeting for the great interest everyone had taken in the discussions and the way the debates had been conducted.

Mr. DI RAIMONDO, Vice-President, thanked the PRESIDENT for the way in which he had presided over the work; he also thanked him in the name of the Section for the aimable way in which he has completed the task entrusted to him. (*Hearty applause.*)

— The Meeting rose at 5 p.m.

N. B. — *The full text of the Summaries adopted for Question I is given hereafter, pages 829 to 833.*

SECTION III. — Working.

[656 .225 & 656 .261]

QUESTION II.

What are the quickest and most economical means to carry out door to door service for railway transports?

What are the best conditions of use of containers for small miscellaneous traffic (dimensions of the containers, conditions of ownership, tariffs)?

What are the packing types to be recommended?

Preliminary documents.

Report (*America [North and South], Australia [Commonwealth of], Burma, Ceylon, China, Egypt, India, Irak, Iran, Irish Free State, New Zealand, Pakistan, South Africa, Sudan, United Kingdom of Great Britain and Northern Ireland and the territories for whose international relations the United Kingdom is responsible*), by Dr. M. G. DE BRUIN (see *Bulletin* for February 1952, p. 79).

Bulgaria, Czechoslovakia, Denmark, France and French Union, Finland, Western Germany, Greece, Hungary, Italy, Luxemburg, Netherlands, Norway, Poland, Portugal and Colonies, Rumania, Spain, Sweden, Syria, Switzerland, Turkey, Yugoslavia), by M. F. SAUVAGEAT (see *Bulletin* for May 1952, p. 397).

Special report, by M. F. SAUVAGEAT (see *Bulletin* for June 1952, p. 507).

Report (*Austria, Belgium and Colony,*

SECTIONAL DISCUSSION.

Meeting of the 9th June 1952.

Mr. A. A. HARRISON, *Executive Officer (Road Transport),
The Railway Executive, British Railways, in the Chair.*

— The Meeting opened at 2 p.m.

THE PRESIDENT welcomed the delegates and proposed on behalf of the Permanent Commission the constitution of the Bureau of Section as follows :

as *Vice-Presidents* :

Mr. F. Q. DEN HOLLANDER, President of the Netherlands Railways, and

Mr. LEHTINEN, Deputy General Manager of the Finnish State Railways;

as *Principal Secretary* :

Mr. UYTBORCK, Engineer, Belgian National Railways;

as *Secretaries* :

Mr. SURLEAU, Inspector, Commercial Direction, French National Railways, and

Mr. P. PUNT, Secretarial Assistant, Paris Office, British Railways.

— *The Section approved these appointments.*

THE PRESIDENT stressed the interest of the reports and the special report presented by the reporters. He then called upon Mr. SAUVAGEAT, the *Special Reporter*, who gave a brief summary of his report, drawing particular attention to the difficulties encountered in making comparisons between the costs of the different methods of door to door transport.

Mr. SAUVAGEAT then read Summary No. 1.

Summary No. 1 :

1. The ever growing cost of handling operations and the speeding up of competitive road methods oblige the railway increasingly to have recourse to improved technical methods in order to realise door to door transport with the maximum speed at the minimum cost and damages.

THE PRESIDENT asked delegates for their comments on this summary.

— *The Meeting agreed to the above text which was adopted.*

Summary No. 2 :

2. The private siding still remains the most economical way of assuring the door to door

technique, on condition that the capital costs are spread over a large number of wagons, that operating costs are reasonable, and that the siding is so laid out that the wagons can be brought right up to the required sites.

THE PRESIDENT reported that since the beginning of 1948 the British Railways have linked up a further 56 new private sidings with their system, entirely in areas which have not been greatly developed to date. In heavily industrialized areas, the private siding is a solution for only a relatively small part of the traffic.

— *As no one else had anything to say, Summary No. 2 was adopted.*

Summary No. 3 :

3. In order to reduce the cost of private sidings linked up with the stations by lines common to several firms (feeder sidings), the railway should devote the greatest care to such sidings and consider to what extent it is profitable to share in financing them.

Mr. CREM (*Belgian National Railways*) wished that the railways would pay closer attention to the conditions of service in order to reduce the charges imposed on the owners of sub-sidings by the owner of the feeder siding, which were often excessive.

Mr. BOURGEOIS (*French National Railways*) supported Mr. CREM's suggestion and in addition wished the words « cost price » to be replaced by some term which would cover all the operating costs more explicitly.

Mr. COTTIER (*International Railway Transport, Central Office*) pointed out that neither the reports nor the summaries mentioned the advantage of using con-

tainers for full loads in the case of door to door traffic that had to be sent via railway lines of different gauges.

THE PRESIDENT suggested adding the following sentence to the summary :

« It is desirable that the firm owning the feeder private siding should not charge the owners of the individual private sidings an excessive fee for making use of their siding. »

Mr. COTTIER wished to complete the original text of the summary by : « Whilst safeguarding the principle of equal treatment for all users under equal condition. » in order not to upset firms, who had already got private sidings.

THE PRESIDENT considered that in Great Britain there was no wish to introduce a rigid and standard formula and that it was better to consider each siding individually.

Mr. BOURGEOIS shared Mr. COTTIER's point of view but did not think it necessary to make any addition to the text as in practice conditions are never quite alike.

Mr. DICKSON (*British Railways*) suggested the following text which took these various suggestions into account : « In order to reduce the cost of private sidings linked up with stations by lines common to several firms (feeder sidings), the railways should endeavour to ensure that the cost for the use of the feeder siding should be reasonable and consider to what extent it is profitable to share in financing the feeder sidings. »

Mr. BOURGEOIS suggested replacing « In order to reduce the cost » by « In order to reduce the costs for the use ».

— *This suggestion was adopted*, the modified wording of Summary 3 will be therefore as follows :

« 3. In order to reduce the costs for the use of private sidings linked up with stations by lines common to several firms (feeder sidings), the railways should endeavour to ensure that the cost for the use of the feeder siding should be reasonable and consider to what extent it is profitable to share in financing the feeder sidings. »

Summary No. 4 :

4. Certain railways attach great importance to letting their clients have depots in their stations or goods depots under very favourable conditions.

THE PRESIDENT suggested omitting the word « very » from the English text, there being no corresponding word in the French text.

With this amendment Summary No. 4 was adopted, the French text remaining unchanged.

Summary No. 5 :

5. Where it is not possible to build new private sidings or there is no justification for them, the container, the wagon-conveying trailer and the rail-road trailer are auxiliary methods which enable full loads to be taken to the client's premises, thereby assuring a close link between the railway and its clients.

After an exchange of opinions between Messrs. SAUVEGEAT and CREM, the above text was adopted, the words « quand même » being deleted, in the French text.

Summary No. 6 :

6. From the point of view of speed, provided the carting distance is short, there is not much to choose between the three methods.

From the point of view of cost, the container is undoubtedly the cheapest method but the more expensive road-rail trailer can sometimes be justified in certain circumstances.

The more expensive wagon-carrying trailer can only be justified by such circumstances as the special character of the traffic or the impracticability of using other methods.

Mr. BOURGEOIS considered that the rail-road trailer is not always more costly than the container. Moreover, the wagon-conveying trailer may cost less than other methods provided there is sufficient traffic, and when it is impossible to build a private siding for technical reasons. He suggested the following new wording for the last two paragraphs of the summary :

« From the point of view of cost, the container is undoubtedly the most economical method for small tonnages, but the rail-road trailer, which costs more to purchase than an ordinary container, can be worked more cheaply when there is sufficient traffic.

« The wagon-conveying trailer, which is very costly to purchase, can be justified economically in the case of sufficiently heavy traffic over a short terminal run, when it is impossible to build a private siding. »

Mr. UYTBORCK (*Principal Secretary*) pointed out that in the new text no mention was made of the special nature of the goods whereas this idea was expressed in the original text of the summary.

Mr. BOURGEOIS answered that in France the nature of the goods does not affect the value of using wagon conveying trailers.

THE PRESIDENT suggested replacing the words « small tonnages » by « certain categories of traffic ». On the other hand, he underlined the fact that no precise information had been received making it possible to compare the cost of the different methods used for door to door transport. THE PRESIDENT suggested also that a recommendation, the text of which would be submitted to the next meeting, be included in this summary in order to bring about a meeting of the experts who would define the best way of making such a comparison.

— *This suggestion was adopted.*

Mr. COTTIER drew the attention of the Meeting to the existence of five international organisations dealing with containers. As from 1953, an international law would regulate the transport of containers. Messrs. COTTIER and BALENSI (*Ministry of Public Works and Transport, France*) feared that the various definitions of the term « container » would lead to confusion in the future, owing to the classification into ordinary containers, special containers, containers « pa » requiring specially designed trucks, large containers and small containers.

After an exchange of opinions between Messrs. BALENSI, SAUVAGEAT and BOURGEOIS on the classification of containers, the PRESIDENT suggested adding a reference to the text making the exact meaning in which the term container was being used quite clear,

This text was to be submitted to the next meeting.

Summary No. 7 :

7. Certain railways consider that the best way of assuring door to door services by means of containers is to make the greatest possible use of the usual haulage vehicles and standard wagons.

Special transport equipment may involve the multiplication of types of equipment and the risk of a less intensive and therefore more costly user.

However, the quality of the service given to clients by means of special containers [pa], and by means of rail-road trailers may justify the higher costs.

Mr. DE BRUIN (*Reporter*) suggested making a correction to the last sentence of the English text by saying « ...justify higher costs » instead of « ...justify the higher costs ».

There was a general discussion on the advisability of retaining the last two paragraphs of Summary No. 7 in view of the new text proposed for Summary No. 6.

Several delegates suggested new texts.

Mr. LARSSON (*Swedish State Railways*) wished the technical conditions to be met by containers sent by air and by water also to be defined.

Mr. COTTIER supported Mr. LARSSON's suggestion and reported that the International Container Office was already studying this point. In addition, he wished that Summary No. 8 would mention the conditions to be imposed for the standardization of containers used for combined sea-railway traffic.

Mr. BALENSI pointed out that the use of containers for all methods of transport

was also being studied at Geneva where a container working group was working in collaboration with the U. I. C. and the International Container Office. He then read a long extract from one of this group's reports.

THE PRESIDENT thought it better not to trespass upon the domain of other interested organizations, an addition to the summaries being outside the frame set for this question. To-morrow, he would put before the Meeting a text which would endeavour to reconcile all the opinions expressed.

Summary No. 8 :

8. Looking to the more distant future, it may well be that the door to door problem as it concerns full wagon loads (apart from the private siding solution) will be solved by establishing central container yards, well-equipped in all respects, and served by high-speed container trains and cartage vehicles operating over wide areas.

Such a development should also aim at the maximum standardization of equipment and the facilitation of international traffic movement.

Messrs. CREM, BOURGEOIS and RIDDLES (*British Railways*) suggested that this summary be deleted.

Mr. COTTIER thought it was regrettable to make no mention of the standardization of equipment and Mr. RIDDLES thought it desirable to retain the idea expressed in the first paragraph about centre stations.

THE PRESIDENT suggested in order to reconcile these various points of view the following new text for Summary No. 8 :

« Development should be towards the

establishment of centre-stations for containers, well equipped and served by high speed container trains and cartage vehicles operating over wide areas.

« This development should also aim at the maximum possible standardization of the equipment used in order to facilitate international traffic and combined transport. »

Mr. BOURGEOIS thought that the idea of centre stations had not yet received sufficient practical application for mention to be made of it, but if this point was retained, it should not be limited to centre stations using only containers.

THE PRESIDENT then suggested an amendment to the wording he had just proposed.

Mr. BOURGEOIS wanted mention also made of the transshipment gear with which these centre stations should be equipped and which have no special relationship with containers, (for example, conveyor belts between wagon and lorry).

Mr. CREM remarked that it would be better to leave out the reference to such centre stations which so far are only based on hypothetical ideas.

Mr. SAUVAGEAT explained that the idea of centre stations introduced in his suggested summaries was concerned solely with centre stations for containers.

THE PRESIDENT suggested drafting a new text which would be submitted to the Meeting the next day at the same time

as the corrections still to be made to two previous summaries.

This suggestion was adopted and the Meeting adjourned at 5 p.m.

Meeting of the 10th June 1952.

Mr. A. A. HARRISON *in the Chair.*

THE PRESIDENT opened the meeting at 9.15 a.m. and suggested the following text for summaries 6, 7 and 8, the wording of which was not approved during the meeting on the 9th June.

Summary 6 :

« 6. From the point of view of speed, provided the carting distance is short, there is not much to choose between the three methods.

« From the point of view of cost, the container is the cheapest method for certain types of traffic but the road-rail trailer and the container « pa » which are more expensive in capital outlay than the ordinary container, can, if the traffic is sufficient, be cheaper to run.

(In this second paragraph, after the word « container » a reference mark would be put with the following wording : « In this context the term « container » refers to a large container which can only be transferred between rail and road vehicles by means of a crane or similar appliances. »)

« The wagon carrying trailer, which is very expensive in capital outlay, can if the traffic is sufficiently important and the terminal distance short, be justified from an economic point of view in cases where it is impossible to build private sidings.

« The information available concerning comparative working costs is incomplete and inconclusive.

« A closer inquiry into costs is needed and a study aimed at reliable comparisons of all-in working costs of the various methods used to provide door to door service for the same kind of traffic in comparable circumstances. Many Administrations now have staff employed upon costing research and in the light of the reports presented, it is recommended that the Congress should promote a special inquiry into the costs, conducted by experts in modern costing technique, who would agree beforehand the precise information to be obtained, the elements of cost to be included and the costing technique to be used. »

— *This text was approved.*

Summary No. 7 :

« 7. Certain railways consider that the best way of assuring door to door services by means of containers is to make the greatest possible use of the usual cartage vehicles and standard wagons.

« Specialization of the equipment for transport by containers may involve the multiplication of types of equipment and the risk of less intensive and therefore more costly user. »

— *This text was approved.*

Summary No. 8 :

« 8. Where containers of the ordinary or « pa » type or road-rail trailers are the means employed for door to door transport, it seems that the development of their use would be assisted by the

creation of centre stations, well equipped in all respects. These centre stations should be served by direct trains and by complementary road transport facilities for feeding and distributing within the area covered by each centre station.

« Development should also aim at the maximum standardization of the equipment and the facilitation of international traffic as well as the combined transports by land and water. »

At the request of Messrs. GOURSAT, BOURGEOIS, CREM and JOFFRE (*French National Railways*) it was proposed to modify the above text as follows :

« 8. Where containers of the ordinary or « pa » type or road-rail trailers are the means employed for door to door transport, it seems that the development of their use would be assisted by the creation of centre stations, well equipped in all respects, served by direct trains and by complementary road transport facilities for feeding and distributing within the area covered by each centre station.

« Such a development should also aim at the maximum standardization of the equipment and thus facilitate combined traffics. »

— *This suggestion was approved.*

Summary No. 9 :

9. Small containers of 1 to 3 cubic metres (35 to 106 cub. ft.) on wheels, large numbers of which are used on the continent of Europe, are operated in two different ways: in the one case, they belong to the transporter (railway or affiliated company), and in the other, to private firms. As a general rule, they are loaded by the user.

The clientele seems to prefer containers of 1 to 2 cubic metres (35 to 70 cub. ft.).

Privately owned containers (those belonging to consigning firms excepted) find it difficult to obtain a load for the return journey, chiefly on account of the specialization, so that the empty mileage tends to equal the loaded mileage, which is costly for the railway, even if empty containers are charged, owing to their low specific weight.

The railway has every interest in limiting empty runs, either by a policy of acquiring its own containers (under its own management or farmed out), or by effective tariff measures.

Mr. COTTIER called the attention of the Meeting to the fact that in the near future large containers would also be both privately owned or owned by the railway.

THE PRESIDENT noted this point which did not however involve any modification to the text of the summary which was concerned solely with small containers.

Mr. THORHAG (*Swedish State Railways*) suggested that according to the results obtained in Sweden, there should be added after the 4th paragraph :

« It must however be mentioned that privately owned containers also make it possible to reduce the cost of handling at the terminal station. »

Messrs. BOURGEOIS and SAUVAGEAT considered that this addition did not make the context any clearer, as the new idea suggested by Mr. THORHAG was probably the result of the special system used in Sweden, whereas these differed from country to country.

— *The original text of summary No. 9 was therefore adopted.*

Summary No. 10 :

10. Pallets and box-pallets used in conjunction with fork-lift trucks can prove of

real advantage in handling parcels, which are transported grouped into consignments of a certain size.

The full advantage is taken of pallets only when they are conjointly used by the producer, the stockist, the transporter and the consignee. Their advantage increases according to the number of handlings involved.

The parcels grouped into lots corresponding to the capacity of the pallets and the power of the fork-lift trucks should remain if possible loaded on the same pallets throughout the journey.

The most economical method of operation appears to involve the use of standardized pallets from a pool, this pool being owned in common by the transporters and the business firms involved.

In any case, it is necessary to assure that the ownership of the pallets and the tariffs for empty and loaded runs should be so established that the railway receives a fair payment for the additional loads it carries.

Mr. THORHAG suggested mentioning in the first paragraph not only fork-lift trucks but also hand operated elevator trucks.

THE PRESIDENT supported Mr. THORHAG's suggestion and suggested also mentioning hand or motor operated trucks for pallets.

After a general discussion on the best terms to use, the Meeting approved the following wording for the first paragraph :

« Pallets and box-pallets used in conjunction with fork-lift trucks or other similar lifting appliances can prove of real advantage in handling parcels, which are transported grouped into consignments of a certain size. »

Mr. THORHAG reported, as regards the fourth paragraph, that in Sweden and the United States the pooling of pallets has not been found the best solution. He

then outlined the principles of the new system adopted in Sweden and suggested completing the 4th paragraph by a sentence making it clear that other systems besides the pool system can reduce the terminal costs.

THE PRESIDENT suggested adding at the end of the 4th paragraph : « but there are many difficulties to overcome ».

Mr. BALENSI mentioned that the standardization of pallets was on the international plane the subject of an investigation being made by a working group at Geneva and in France likewise there was a Commission studying the same question.

A discussion then took place between the PRESIDENT, MESSRS. DE BRUIN, COTTIER, BOURGEOIS and THORHAG, the latter suggesting that the last paragraph of the summary be deleted or at least altered to make it less absolute.

The other delegates on the contrary considered that it was necessary to insist on the danger of adopting for the pallets an unprofitable scale of rates for the railways.

Finally, the Meeting agreed to approve the original text of this paragraph without modification, and the wording of summary No. 10 became :

« 10. Pallets and box-pallets used in conjunction with fork-lift trucks or other similar lifting appliances can prove of real advantage in handling parcels, which are transported grouped into consignments of a certain size.

« The full advantage is taken of pallets only when they are conjointly used by the

producer, the stockist, the transporter and the consignee. Their advantage increases according to the number of handlings involved.

« The parcels grouped into lots corresponding to the capacity of the pallets and the power of the fork-lift trucks should remain if possible loaded on the same pallets throughout the journey.

« The most economical method of operation appears to involve the use of standardized pallets from a pool, this pool being owned in common by the transporters and the business firms involved, but there are many difficulties to overcome.

« In any case, it is necessary to assure that the ownership of the pallets and the tariffs for empty and loaded runs should be so established that the railway receives a fair payment for the additional loads it carries. »

Summary No. 11 :

11. Packings justify their cost by the services rendered to the consignor and the transporter. The packing contains or holds the goods together and protects them; it often modifies their form. The consignor can use it for publicity purpose, without the cost being appreciably modified thereby.

Mr. LARSSON stressed the fact that the packing should be concerned above all with reducing the cost of transport. In Sweden, the consignor tended to balance the cost of his packing against the cost of damage occurring in transport. The Swedish Railways were following very closely the evolution of packings and recommended to their clients the most suitable kind and type of packing for each kind of goods, without however making

such packings obligatory. Mr. LARSSON then detailed the chief recommendations made to clients.

As no one else had any comments to make on this subject, *Summary No. 11 was adopted.*

Summary No. 12 :

12. Effective packing makes it possible to reduce handling and depot costs, as well as the transport assurance premium paid by the consignor.

Mr. LARSSON suggested including in the text a recommendation aiming at the standardization of packing so as to ensure that the area of the standardized pallet was a multiple of the area of the standard packing.

Mr. BOURGEOIS suggested that this question would be better dealt with after summary 13.

This suggestion was approved, and the original text of Summary No. 12 was adopted.

Summary No. 13 :

13. The method of packing influences the cost of the transport and in particular the cost of handling, capital costs and maintenance costs for the stock, as well as the sums paid out in damages.

This summary was adopted without discussion.

Summary No. 14 :

14. The lack of a monopoly generally makes it impossible to use compulsion, so that the transporter has to be content with trying to persuade the consignor of the benefits of packings. Profiting by his experience and the fruit of his laboratory tests, he will assist in finding effective and cheap packings.

Mr. BOURGEOIS pointed out that it would be opportune to introduce in the summaries the idea of standardization already mentioned by Mr. LARSSON and that of the use of new packings. These questions moreover were the subject of an investigation being carried out by the European Economic Commission. Mr. BOURGEOIS then read a text recently adopted by the U. I. C. at the Lausanne Meeting.

Mr. BOURGEOIS then suggested drafting two new summaries before dealing with the idea contained in the present summary No. 14. The wording of the new summary No. 14 would be :

« 14. In order to meet requirements, packing must be : inexpensive, light, resistant, attractively presented.

« The dimensions and designs must allow for :

« — strength, easy stocking and handling of the packages;

« — suitability of loads;

« — best use of transport equipment and handling appliances.

« To achieve these objectives it is necessary to recommend the use of standardized packings which comply with certain criteria studied by the carriers in collaboration with the manufacturers of packing and the consignors. »

— This text was approved by the Meeting.

Summary No. 15 :

Mr. BOURGEOIS suggested the following text for a new summary No. 15 :

« 15. As opposed to heavy packing

which can be used for several journeys, the present trend in commercial practice is to do away with the heavy costs involved in the transport of returned empties.

« Moreover, it is in the carrier's interest to avoid excessive re-use of packings, which results in a rapid weakening of their resistance, leading to damage.

« In view of the fact that the use of new (non-returnable) packing gives the greatest guarantee so far as solidity and hygiene are concerned, and preserves the good appearance of the goods, it therefore seems advisable to recommend its application in all cases where this method can be technically and economically introduced. »

Summary No. 16 (former Summaries 14 and 15) :

14. The lack of a monopoly generally makes it impossible to use compulsion, so that the transporter has to be content with trying to persuade the consignor of the benefits of packings. Profiting by his experience and the fruit of his laboratory tests, he will assist in finding effective and cheap packings.

15. The frequency of manipulations has the determining effect on the packing requirements, and these manipulations tend to become more numerous in the case of railway transport (apart from the door to door technique) than in the case of road transport, so that the railway is in a weaker position than its competitors. Under these conditions, the railway should endeavour to let the consignor share in the benefits obtained from the use of efficient packing by an adequate tariff policy.

Mr. BOURGEOIS considered that the first sentence of point 14 ordered transporters to take a neutral attitude, which was contrary to summary 15. He sug-

gested replacing the first sentence by the following text :

« The resistance and consequently the cost depend on the number of handling operations involved.

« As these tend to be more numerous in rail transport (apart from door to door service) compared with road transport, the railways find themselves in a weaker position than their competitors. In these circumstances the railways should :

« — endeavour to carry out a persuasion campaign for good packing and, at the same time, give the consignor the benefit of their experience and their laboratory tests;

« — apply if needs be the appropriate charges, which will only be applied to goods carried in approved new (non-returnable) types of packing, thus giving the consignor a share of the benefit derived from the use of adequate packing. »

Mr. CREM wished for greater precision regarding the appropriate measures mentioned in the last paragraph.

Mr. BOURGEOIS suggested adding in parentheses after « appropriate tariff measures » : « (tariff reductions, decreasing the responsibility of the consignor in case of damage) ».

This suggestion was approved, so that the final text is as follows :

« 16. The resistance and consequently the cost depend on the number of handling operations involved.

« As these tend to be more numerous in rail transport (apart from door to door service) compared with road transport,

the railways find themselves in a weaker position than their competitors. In these circumstances the railways should :

« — endeavour to carry out a persuasion campaign for good packing and, at the same time, give the consignor the benefit of their experience and their laboratory tests;

« — apply if needs be the appropriate charges (such as adjusted charges including acceptance by the railways of greater liability in case of damage), which will only be applied to goods carried in approved new (non-returnable) types of packing, thus giving the consignor a share of the benefit derived from the use of adequate packing. »

The examination of the summaries being thus terminated, the PRESIDENT asked if delegates wished to discuss any questions which had not been covered by the Summaries.

Mr. THORHAG made a comparison between small containers and box-pallets. The latter have the advantage of a low tare, are easily folded up and stacked, and can be manufactured cheaply. On the other hand, fairly costly equipment is needed to handle them.

In international traffic, small containers should be fitted with a device to enable them to be handled by fork-lift trucks.

Mr. THORHAG was afraid that owing to the facilities which exist for developing the use of small containers, the latter

will become too preponderant and hold up the evolution of box-pallets.

THE PRESIDENT reported that in Great Britain, small containers are not used, and box-pallets can be used in their place so long as the difficulties of transshipping them onto the wagons can be overcome.

Mr. KJEBON (*SLAB Company affiliated to the Swedish State Railways*) hoped that at a later meeting the possibility of reducing costs by transshipping goods directly onto the lorries could be gone into.

Mr. BOURGEOIS supported this suggestion.

THE PRESIDENT then thanked the Special Reporter Mr. SAUVAGEAT, and Mr. DE BRUIN, the Reporter, as well as the Secretaries.

He then announced that the afternoon meeting would be devoted to showing various films that certain delegates had brought.

Mr. BOURGEOIS in the name of the Meeting thanked the PRESIDENT for having directed the discussions so competently and skillfully.

— The Meeting adjourned at midday.

Note. — *The final text of the Summaries of Question II appears on pages 834 to 837 hereafter.*

SECTION IV. — General.

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QUESTION III.

Economic aspects of :

a) discontinuing service on old railway lines;

b) construction of new railway lines;

with regard to the possibility of handling transport with other means.

Preliminary documents.

Report (*Austria, Belgium and Colony, Bulgaria, Czechoslovakia, France and Overseas Territories, Greece, Hungary, Italy, Luxemburg, Netherlands, Poland, Portugal and Colonies, Rumania, Spain, Switzerland, Turkey and Yugoslavia*), by G. MOULART (see *Bulletin* for March 1952, p. 147).

Report (*America. [North and South], Australia [Commonwealth of], Burma, China, Ceylon, Denmark, Egypt, Finland,*

India, Irak, Iran, Irish Free State, New Zealand, Norway, Pakistan, South Africa, Sudan, Sweden, United Kingdom of Great Britain and Northern Ireland and the territories for whose international relations the United Kingdom is responsible) by Arne SJÖBERG (see *Bulletin* for March, p. 201, and April 1952, p. 235).

Special report by Arne SJÖBERG (see *Bulletin* for June 1952, p. 519).

SECTIONAL DISCUSSION.

Meeting of the 9th June 1952 (afternoon).

Mr. E. UPMARK, *General Manager of the Swedish State Railways, in the Chair.*

— The meeting opened at 2 p.m.

THE PRESIDENT welcomed the delegates and stated that the Permanent Commission had proposed the constitution of the Bureau of Section as follows :

as *Vice-Presidents* :

Mr. J. L. GARCIA-LOMAS, Manager

of the Spanish National Railways (R. E. N. F. E.), and

Mr. E. D. TERKELSEN, General Manager of the Danish State Railways;

as *Principal Secretary* :

Mr. H. LENFANT, Principal Engineer of the Belgian National Railways;

as *Secretaries* :

Mr. BÉNY, Principal Inspector of the Traffic Department of the French National Railways (S. N. C. F.), and

Mr. Ch. E. WHITWORTH, Assistant to Chief Officer (Administration), The Railway Executive, British Railways.

— *The Section expressed its approval.*

THE PRESIDENT said he wished, before getting down to work, to make a few general observations rather outside the scope of the subject with which the work of the Section was concerned.

The economic equilibrium of nearly all the European railway systems is to-day severely endangered. The reasons for this status are complex. There are, however, two points of outstanding importance in this respect, namely, an evergrowing competition from other means of transport, especially from the roads, and the far-reaching effects of inflation.

He established a parallel between the situation in Europe and that in the United States. Competition is, no doubt, ever keener in the United States than in Europe, but the grip of inflation is not as severe, with some very rare but outstanding exceptions.

He stated that he retained a couple of reasons for the differences existing between the two continents.

The principal refers to the geography and the economic development of the United States. The United States is a vast continent, with great distances within an economically and politically closely integrated unit and with highly specialised production within the separate parts of

the country. The economic development of this continent was largely built up around the railways, whilst, in Europe, the railways largely had to be built to conform to an already established production entity and at a time when knowledge about transport problems was even less than to-day.

On the other hand, the high efficiency of the American railroads is, to a certain degree, counter-balanced by the short working hours of their employees. The staff has shared in the gains resulting from better economic conditions and mechanization, by the rising of his standard of life.

At the same time, the customers of the American railroads have had the benefit of rates and fares relatively decreasing during decades, and in this way the gains have been distributed between customers and employees.

Even European railways have given their customers a share of the profits but one must recognize, it was to a lesser degree, and now their share is not very great.

In Sweden, the index of rates and fares was the same in 1914 and in the beginning of the 'thirties. Since then, costs of living have risen considerably faster than rates and fares. This disparity ought to be very favourable for the volume of traffic on the railways. As a matter of fact, many railways have to-day a considerably greater volume of traffic than during the boom year of 1929.

A new maximum of volume of transport was reached in 1951 but, for the moment, the tendency is on the downward trend. In spite of this development of the volume of traffic and of revenues, the influence

of inflation has meant that costs have risen even faster than revenues, thus upsetting the economic equilibrium of most railways.

The prospects could be characterized, according to the temperament of the observer, as being something between « not too bright » and « sinister ».

The Rome Congress discussed the determination of the criteria deciding the conditions required to maintain a line in service and assure that it paid its way.

The Stockholm Congress is going to consider whether it is advisable to abandon a line and suppress the railway services. As a corollary, it will examine under what conditions the construction of new lines can be justified.

THE PRESIDENT paid a tribute to the work of the two Reporters whose merits the delegates had been able to appreciate. These reports would serve as a basis for the discussions.

Before reading the summaries, he proposed to ask the Reporters to give a comment on their reports and then open the general discussions, which would make it possible to compare practical experiences obtained in different countries.

— *The Section agreed to these suggestions.*

Mr. MOULART stated that Mr. SJÖBERG and himself had dealt with the same question from different aspects and points of view.

Mr. SJÖBERG as an economist endeavoured, like a Doctor, to diagnose the

ill and then find a remedy to cure and heal it.

He himself had rather adopted the thesis of the surgeon who seeing that there is something wrong with certain organs, considers amputating them.

The preliminary examination must take into account the obligations of the railway and the interests of both the public and the railway.

Rather than classify certain lines as « lines showing a deficit », he suggested determining the limits of traffic which can be justified economically and examining at what point it becomes more economical and more advantageous to organize road transport.

He described the studies which have been made, especially in Belgium. He reported the strong reactions of the public against the suppression of passenger services, in spite of the fares being the same when road services were substituted for railway services.

THE PRESIDENT thanked Mr. MOULART and added a few general remarks. He agreed that if the railway closed down a line, they had an obligation to set up some substitute transport. He compared the position of very strongly developed railway systems in a country with a very dense population, such as Belgium, with a railway system such as that of Sweden where the population is very scattered. He concluded that the rational methods would necessarily vary from country to country, and even within a country according to the different conditions in different parts of the country.

Mr. SJÖBERG, *Special Reporter*, stated

that he merely wished to make a few supplementary remarks in connection with the PRESIDENT opening address.

This called attention to the economic consequences resulting from a factual situation, namely concessions granted several years ago and the charges thereby formed in spite of profound modifications in the economic situation of countries. If existing lines are closed down, must they be replaced by road services?

According to the Reporter, this is the only technical question which need be considered by the Section.

The factors to be taken into account are : the geographical and even the demographical condition of the country, the density of the population in each district, the general structure, industrial development, the economic life itself, and the transport policy practised at different epochs.

As all these factors reveal fundamental differences at different epochs, and in addition there have been many adaptations, it is necessary to proceed very cautiously.

The economic position of nearly all the railways is menaced in particular by the growing competition of other methods of transport, and the gap between the operating costs and the receipts.

The railways have had to make modifications in their operating methods, in particular by increasing the services on certain lines and reducing or even closing down the services on other lines.

This evolution, in full spate at the time of the second world war, was brought to a stop by the greatness of the demands made upon the railway and the elimination of competition.

Since the end of the war, competition has become keener and keener, at a time when the volume of traffic in most countries has fallen off compared with pre-war years.

Any adjustment must therefore take the new economic conditions into account; it is always possible to improve the operating by making use of methods better adapted to the times. Above all, old traditions must be given up and the possibilities of better management gone into.

The examination should cover every factor : rolling stock, operating centres, etc.

He drew particular attention to the general organization which should be reviewed taking into account the magnitude of the duties falling upon the management.

As a remedy to these difficulties, he suggested decentralisation, the dividing up of the enterprise into smaller groups under the care of a manager whose activities can be judged by considering the profits and losses made in his area. Such decentralisation should be accompanied by appropriate economic control.

THE PRESIDENT thanked Mr. SJÖBERG for his comments on his special report. He remarked that the difference between the reports of the two Reporters are not as considerable as at first appears.

Mr. MOULART has looked into the case of the « incurables » thinking of amputation and the elimination of all that cannot be improved, whereas Mr. SJÖBERG has made a diagnosis, from a different point of view, examining what is curable and what can still be treated.

GENERAL DISCUSSION.

THE PRESIDENT asked the delegates to express their opinions on these points of view.

Mr. MOULART answered a question asked by the PRESIDENT about the case of a large country with a small population. « Should amputation be avoided even if the traffic is very small? » Mr. MOULART thought that the reply might be obtained from a consideration of the balance sheet of the working. He endeavoured to ascertain certain limits of traffic for lines likely to be closed down. An examination of the balance sheet might show that road services would be less advantageous and consequently railway services would be automatically retained on such lines.

In his report, he pointed out that the suppression of the passenger services gave the greatest savings.

In the case of Belgium, the suppression of passenger services accounts for nearly three-quarters of the total savings.

It makes it possible to cut down the staff very considerably and this leads to the greatest savings.

Maintaining goods services on a line with nothing but goods services where there is not much traffic does not require much staff nor maintenance. The wear of the rails is so small that it will be dozens of years before they have to be renewed.

Consequently, in many cases, the passenger services can be replaced by bus services whilst the goods services by rail are retained. But in every case it depends on the balance sheet.

If the goods services are to be sent by

road, the use of large containers or wagon-conveying trailers will be better than ordinary lorries, as handling of the goods is thereby reduced.

Mr. CUTTICA (*Italian State Railways*). Decentralisation has been put forward as an advantage owing to the regional manager having a better knowledge of the conditions and needs of his area. In highly developed countries, a local manager can be in a position to judge as regards his area. He cannot express a judgment as far as the operating as a whole is concerned.

To assure an equitable regime for the public in general, the central authority must be the judge.

In another order of idea, when the railway cannot close down a line because the government will not agree for economic or social reasons, it is only right that it should be subsidized.

Mr. GIRETTE (*French National Railways*) considered that the remarks made by the PRESIDENT and the REPORTERS showed how vast and complicated the question was.

He suggested examining in turn the lines which could be called :

1°) « hopeless lines » where, owing to the very small traffic, no rating measures could bring about any improvement in the balance sheet;

2°) lines about which nothing much is said, which no one ever thinks of closing down, on which certain elements of traffic show a deficit, in which case it would be sufficient to prune off certain « dead branches »;

3^o) lines where the traffic is partly insufficient, either in the case of the goods or passenger traffic.

THE PRESIDENT whilst accepting that the 3rd point of Mr. GIRETTE's suggestion is the most interesting, said that for lack of time it was not possible to get away from the subjects submitted for discussion to the Assembly.

M. PERRONE (*Ministry of Transport, Italy*) paid tribute to the judicious and complete fashion in which Mr. SJÖBERG had covered the question. He wished to supply a few details about his own country.

Most recent statistics for conceded railway lines which have little traffic classified these lines according to the number of traffic-units per kilometre : more than a million; less than a million, but more than 500 000; less than 500 000 but more than 200 000; and less than 200 000.

Some lines with more than 500 000 traffic-units have an operating coefficient above par, and some with less than 200 000 units have a coefficient of about 1.02 to 1.38. This shows that though small traffic may usually be carried by road transport more economically, the coefficients obtained by certain conceded railways showed that it is possible to balance the budget of the railway provided the rolling stock and sometimes the permanent way is suitably adapted and modernized.

A law is under consideration to facilitate such modernization.

Subsidies and grants are given for both operating and modernization. An inter-

ministerial committee puts the proposals before the Minister of Transport.

Mr. GIRETTE regretted that the third of his points was not retained by the PRESIDENT. He considered this one to be the most important.

THE PRESIDENT thought Mr. GIRETTE was probably right, but he did not think there was time enough to go into all these questions. He thought the agenda should be kept to.

Mr. TRAIN (*British Railways*) stated that in Great Britain, it is believed that closing certain lines is doing the same thing as a gardener pruning a tree, in order to make it healthy. A great many branches have been closed after thorough examination of the economic consequences.

Certain lines may very well come into the « hopeless » class simply because the villages or towns are remote and some little distance from the stations.

Nothing can be done in the way of putting improved trains and more frequent services in such cases, because people in these days, will not walk any distance to a station.

In every case, of course, all the essential facilities are provided by either bus services for passengers, or lorry services in the case of goods, so that people are not left without means of transport.

Likewise, in regard to economies in the operation of secondary services, the same problem occurs. There are many hundreds of lines of almost main lines in Scotland, which are a source of loss.

The main lines are an essential part of the life of the community of the country; they are also essential for defence purposes in times of war.

He did not dare to suggest a remedy but he does not think it satisfactory that lines so important for the life of the country have to be operated at the expense of the more profitable lines in the industrial areas.

Mr. SANTORO (*Italian State Railways*) considered that the substitution of road transport for railway services depended upon the cost, consequently was a question of the rates. The cost of the two services should be compared.

At the Rome Congress no precise figures or data could be agreed upon. At the present time, a figure of 150 000 traffic-units per annum was quoted.

Finally, in certain countries, substitution is impossible owing to climatic conditions, especially snow. In such cases, it is materially impossible.

Mr. DEN HOLLANDER (*Netherlands Railways*) gave some information about their experience in the Netherlands.

First, a railway undertaking must be on a sound business basis, and its operation must pay and give a certain standard of service; the lines that do not pay have to be closed from the moment that the undertaking as a whole ceases to pay.

He stated that a number of kilometres of track have been closed in the last few years. Concerning the fear of the public in the regions where the closing down of lines is considered, he thinks that those concerned are just against the closing

down of the lines because they lose the railway, not merely as a route upon which trains are being operated, but because they lose the system as a whole. In his opinion, it is a mistake to keep the name of « railways » for transport undertakings. He suggested to substitute the terms « Transport undertaking » for the name « railways ». In Netherlands, for instance, the Netherlands Railways would be called the « Netherlands Transport System ». Sticking to the name « railways » is a mistake; moreover, it is one that is not being made in other branches of transport. For example, in Stockholm or in any other city in the world you can see this; for wherever it has been necessary, they change from railways to road transport, and you see a mixture of road and rail transport, i. e., in buses, and we see the same in the case of tramways. In the Netherlands, we have tramway undertakings which operate services both on rails and by road.

The only undertakings that are not allowed to transfer from rail to road are the so-called « railways ».

As a conclusion, he proposed to modify the present names and not to refer to the closing down of lines but of their replacement. The question must also be considered at the point of view of « business undertaking » and only decide the replacement when the financial position makes it necessary. The cutting down of costs on the one hand and, on the other, the introduction of the suggested arrangements should do much to meet the problem.

BADHWAR (*Railway Board, Ministry of Railways, India*) stated that it might

be interesting to relate the experience of the large railway systems, such as those of India with a mileage of over 56 000 kilometres.

For a railway system of this character, it is impossible to be paying in all its sections. If the operating ratio of a large public utility undertaking like a railway, is under one hundred, he does not think that it is right to close down any part of it.

A railway is not like a departmental store, where, for instance, a department which does not pay, is suppressed while another will have to increase its sales. A railway system is a public utility — an essential one — fulfilling functions which no other form of transport can provide. This is why an operating ratio below one hundred cannot justify the closing down of one section.

On the other hand, he agrees that further development expenditure is justified on the more paying sections.

The substitution of another form of transport may be justified during a particular period of time. But it must not be forgotten that a railway line is usually built as a result of a careful study, and he thinks that managements should have faith in all sections of a railway system, and not be unduly stampeded during an adverse period into considering closing down certain lines. It is better to examine very carefully operating costs and to cut down expenses by introducing some cheaper forms of trains, such as railcars or diesels.

Most countries — even very highly developed countries — have found that, in times of crises, their railways are most

important from the point of view of national security.

THE PRESIDENT rejoiced to find such an expression of faith in the future.

— The Meeting adjourned at 5 p. m.

Meeting held on Tuesday 10th June 1952.

President : Mr. E. UPMARK.

— The meeting opened at 9 a.m.

THE PRESIDENT suggested continuing the examination of the question of closing down old lines and then going on to consider the construction of new lines.

Mr. GIRETTE confirmed the opinion expressed by Mr. MOULART that the closing down of the passenger services resulting in savings accounting for about three quarters of the total saving due to closing down the line altogether.

Before the war, the French Railways did away with the passenger services on more than 10 000 km (6 200 miles), i. e. more than a quarter of the French railway system.

The parcels and small goods traffic has also be transferred to the road. The remaining full load traffic can then be economically worked by a simplified operation. French experience had been that a daily traffic of 60 to 100 tonnes justified retaining railway services for full loads.

Mr. HARRINGTON (*British Railways*) In Great Britain, there is special Branch Lines Committees set up in each Region which deal with closing down lines owing to insufficient receipts,

On the suggestion of these Committees, the Railway Administration in the last four years has authorised the closing down of about 2 000 km (1 240 miles). The working methods of this commission have been dealt with in the special report.

When the examination is carried out, the repercussions on existing main lines must not be overlooked due to the closing down of secondary lateral lines.

The need for dividing up the transport, for both passengers and goods, between two methods of transport, is often a cause for abandoning the railway.

Mr. THORSELL (*Swedish State Railways*) gave some details about experience in Sweden on the closing down of lines.

In 1938 the Swedish railway system amounted to 16 886 km (10 440 miles).

Since that time, 290 km (180 miles) of lines have been closed down, but in the meantime new lines have been built. The reduction is therefore only 2 % of the 1938 maximum. The lines closed down were narrow gauge branch lines.

In general, the line is kept open if there is sufficient goods traffic. The closing down of lines with little traffic has been proposed however when the staff cannot keep to the 8 hour day or have to sleep away from home.

The excess lines are due to economic developments and to changes in the economic structure.

For example, some lines have been closed down because the mines which justified their construction have been exhausted.

On the other hand, after the development of the railway has followed the

competition of other methods of transport. For example, maritime transport was formerly divided up amongst many small ports served by railway lines. The concentration of the traffic at the large ports has led to the construction of new lines and the closing down of those serving the small ports.

Mr. CUTTICA gave some information about Italian experience in connection with lines with little traffic.

The closing down of a secondary line may involve a loss for the main lines. The railways have asked for lines to be closed down, but they have never obtained any satisfaction. Political, economic or social reasons have prevented the lines being closed down, even when the railway suggested substituting bus services for the railway services.

Very exceptionally, secondary railways have obtained permission to close down the goods services which suffer the most severe competition in Italy.

Lord HURCOMB (*British Transport Commission, Great Britain*) stressed the fact that an equitable solution for the railways was required. He agreed with Mr. DEN HOLLANDER's suggestions to place the matter on a realistic footing and not let questions of prestige influence the matter. The railways should consider what methods are the best to maintain the services on a profitable basis and to fulfil their responsibilities.

The effects of the secondary lines on the output of the main lines should be carefully gone into. This should be done honestly and loyally.

In Great Britain, the main-lines are in general profitable so long as they do not have to run any services which are not a paying proposition : for example, services to stations where there are too few passengers, etc.

In studying the profitability, not only the actual but also the potential figures must be taken into account.

In general, it is impossible in certain regions to maintain railways built at a period when economic conditions were very different to those now in force, unless this can be reconciled with present day requirements.

A certain number of lines have been closed down in Great Britain, but it is not certain whether anything more can be done in this direction.

The small stations can be served by motor services, so long as the number of buses needed is determined with sufficient accuracy. Such an organization will make it possible to avoid stopping the trains at these small stations.

The British Railways are of the opinion that rail services must not be suppressed until steps have been taken to assure communications by means of another service by road. If this policy is to be followed, how is it to be made effective unless the same transport authority is in a position itself to offer the facilities by road? A purely private road transport undertaking will not be content to come and provide a service which may leave a very narrow or practically no margin for itself, merely because it is going to reduce the costs of the Railway Administration.

Lord HURCOMB does not see how there is to be a proper solution of that problem, unless the transport authority is itself able

to provide facilities by road and unless there is a common financial interest in both forms of transport. He quoted a passage of the report presented to a special Committee of the United States Congress in 1946, and which is to be found on page 290 of the April issue of the *Bulletin* in the English version, where it is said :

« ...A transportation agency utilizing various modes of transportation in its operations would in its own self-interest perform each operation by the mode best adapted for its performance. It would have no motive to reach after and take from other modes traffic for which they are better fitted than it, thereby increasing the total cost of moving the nation's traffic.

« It is clearly in the public interest that operation of multiple-type transportation agencies be permitted, as the same degree of efficiency and economy of service cannot be achieved through arrangements for joint service by separate competing interests. »

When the competent authorities refuse to allow a line to be closed down to passenger traffic, even though the railway considers such a line to be running at a loss, the solution is not to ask for a subsidy but to look into the causes of the deficit.

These causes may be : carrying workmen at reduced rates, carrying scholars, the postal services, free or reduced fares for seasonal workers. In this case, the cost of such services should not fall upon the railway but upon the organization which imposes such transport on it. The latter should ask for the subsidy, not the railway.

Regarding the capital invested, it is perfectly possible to continue to operate a line until the time when renewal, more costly maintenance or reconstruction becomes necessary.

The study and experience of Lord HURCOMB of this problem lead him to the view that the only solution in the interests of transport undertakings and public interest in giving a proper service is to be found in having both means of transport in the same hands and governed by a common purpose.

THE PRESIDENT now proposed to examine the point raised by Lord HURCOMB. (*The Meeting agreed.*)

Mr. GIRETTE wished to go back to a remark made the afternoon before on the need for keeping a balance sheet for the lines to be closed down and the receipts they bring in to the main lines. It is difficult to give statistical figures in such a complicated field.

According to French experience, the problem is very different according to whether it is question of passenger or goods traffic.

In the first case, the risk of the main lines losing any appreciable receipts is practically nil.

In the second case, on the contrary, the question is altogether different; according to experience, one ton of goods from a small line, travels over 6 to 7 times more mileage on the main line than on the small line.

For this reason in France, if it is easy to give up the passenger traffic and in most cases no substitute services are

organised; it is on the other hand very important to remain in control of the goods traffic on the small lines. In the last year the S. N. C. F. has suppressed the goods services on some thousand kilometres of lines and replaced them by road services under their complete control.

The transport contract begins at the premises of the consignor and ends at those of the consignee, with the same rates and same responsibilities as in the case of railway services.

The opposition of the public which is considerable at the time the decision is taken, disappears after a few months. In general, the public seem to be satisfied with the new services which in most cases are an improvement on the old.

THE PRESIDENT : Experience in Sweden agrees with that just described by Mr. GIRETTE. After opposition at the start, the public in general are satisfied with the improvement due to substituting the services.

Mr. MOULART pointed out that the loss of receipts mentioned by some delegates is in general non-existent because on the one hand the Government does not allow the railway to give up the traffic but forces them to work it by other means, and on the other hand the lines in question are lines with very little traffic in districts where road competition is practically non-existent. Competition only occurs in districts where the traffic is heavy and profitable.

THE PRESIDENT suggested adjourning the meeting for ten minutes, after which the practical experience of the different

countries would be continued to be discussed, and then the consideration of points 1 to 15 of the Special Report.

— The Meeting adjourned at 10.30 a.m. and reopened at 10.45 a.m.

Mr. COURTNEY (*Coras Iompair Eireann, Ireland*) reported that there is a similar Commission in Ireland to that mentioned by Lord HURCOMB and functioning in the way suggested by Mr. DEN HOLLANDER, i. e. a Transport Board rather than a Railway Board.

The Irish Transport Board has complete monopoly for transports by rail and by canals. On the roads, it has practically a monopoly of the passenger services, both urban and rural. It has no monopoly in the case of road freight, although it operates road freight services.

When it comes to the question of closing a railway line, the matter is examined, from the point of view of effect on revenue from the branch line and the effect on revenue on the main line. In addition, when there is opposition from the public, the question has to be referred to a Tribunal.

Recently an experiment was carried out. The losses on a branch line were merely due to the abandonment of the use of the line by the people in the locality. A road service was run at the same times as the rail service and at the same rates. Shortly after this started, the people in the area wrote to the railway and said that they had communicated to all traders supplying goods to this area that consignments must be sent by rail. As a result of this action, many merchants had to abandon the use of their own lorries for the delivery of goods to this area.

In Ireland, the road passengers fares are higher than the rail passenger fares to induce people to travel more by rail.

Experience has shown that, in certain cases, the cost of transport increases when the rail services are suppressed, owing to the difficulty to find freight for the lorries on the return journey.

THE PRESIDENT remarked that a lot has been said about one transport authority and unified transport rates. Such a system may work when there is one authority covering the whole field, but not if this authority is able only to cover parts of the field or parts of a country.

In Sweden, there are private railways, and it may be said that there is practically one railway undertaking in so far as the question of fares and rates is concerned.

The railways control about 40 per cent of the bus services running on the roads of the country. There is generally no competition; in some areas, the railways run the buses, while in others they are run by private undertakings.

In the case of lorries, the railways cover only about two per cent of the field. Therefore, it is much more difficult to have unified transport rates. It is more natural to keep different charges on buses and lorries from those by rail. Up to now, they have not dared to have unified rates. Even on the road passenger services, there are three different scales of fares.

He asked Mr. LINDSKOG to say a few words about the system of determining fares and rates on buses and lorries, so as to show why, at present, they are still very uncertain whether it will be possible to go over to a unified system of charges.

Mr. LINDSKOG (*Swedish State Railways*) stated that there are in Sweden, two or three ordinary bus tariffs for single and return journeys, of which the lowest is four per cent and the highest 25 per cent higher than the railway fares. On most of the bus routes, the two higher tariffs are applicable; consequently, the average price paid is about 15 per cent higher than that in force on the railway. This is the case up to 85 kilometres, but for distances in excess of this, the charges are the same. For monthly tickets, the difference in price is much greater, namely, between 32 and 48 per cent higher than on the railways.

This fare policy, as the PRESIDENT already said, has not met with very much opposition from the public, who has recognized the advantages of better connections, increased comfort and facilities offered.

Mr. SANTORO agreed with the statements made by Mr. CUTTICA as regards the position and the difficulties of the railway in Italy.

The operating is in full evolution. An attempt is being made to apply uniform rates to the railway and the road services, taking the present railway rates as the basis. When the rates are the same, the public prefers the railway.

Mr. CUTTICA agreed with the statements made by Lord HURCOMB. Like him, he thought it was not the railway which should ask for a subsidy from the State if there was a deficit due to some benefit granted to the public under pressure from various organizations. The latter or those, who benefited by them, should be those to seek a subsidy.

However, when the traffic was too small, whom could the railway ask for a contribution? In fact, in general, such a contribution could only be expected from the State, the Provinces or the Communes.

But let us not forget that the difficulty is to obtain an authorization to close down a line.

THE PRESIDENT asked for consideration to be given to the « Points suggested for discussion », appearing in the English edition on page 525 and the French edition, page 569 of the *Bulletin* for June 1952. He said it was not necessary to read the points individually.

— *Points 1 to 14 were approved; point 15 would be considered in a latter discussion.*

THE PRESIDENT proposed to begin to read and examine the summaries. He asked Mr. MOULART to read the first summary and proposed taking them paragraph by paragraph.

Summary 1 :

1. Since the advent of railways, commercial and industrial needs have completely changed. The same applies to means of transport.

— *Adopted.*

On the other hand most railways were built piecemeal under no coherent plan.

Mr. SJÖBERG proposed some minor amendments to the first point already accepted by the meeting. The strength of the argument is really, in the main, that new means of transport have come into existence.

Mr. MOULART thought the text of the summary was sufficiently clear. It also had the merit of being briefer.

Mr. GIRETTE pointed out that it was difficult to examine a summary paragraph by paragraph. It is difficult to comment on it as a whole if this procedure is adopted. A remark on the whole might not make sense after the previous sentences had been adopted.

He suggested that the delegates make their general observations before the summary was dealt with paragraph by paragraph.

The reading of Summary 1 might give the impression that we were ready to discuss the transport system as a whole, ponder and reweigh it. This would be a gigantic task. The object of the meeting is surely a more modest one? Therefore should not the wording of the summary also be more modest?

THE PRESIDENT was of the opinion that the wording suggested by Mr. SJÖBERG introduced nothing new. It is dangerous to improvise in the presence of a text the wording of which has been thoroughly examined already.

He was not sure that he had perfectly understood Mr. GIRETTE.

Mr. GIRETTE simply suggested reading the whole summary before discussing it sentence by sentence.

THE PRESIDENT stated that consideration would be given to what was the best procedure, but in the case of the first summary this would continue to be read paragraph by paragraph.

Mr. MOULART read the third paragraph :

It is necessary to reconsider the transport problem for each region, within the framework of a rational plan and taking into account all existing means of transport.

He suggested adding at the end after « existing » « or possible » so as not to limit it to those which already existed but also cover those which might be introduced.

Mr. BOYAUX (*French National Railways*) gave three reasons justifying the reconsideration of the problem :

The first is that commercial requirements have altered, the second that transport possibilities have changed, and the third that the railways have been badly designed.

The first two are of general interest, the third, though more or less general, varies in importance according to the country.

Transport possibilities have undergone a radical change and this evolution is more fundamental even than that of commercial requirements.

Consequently, he suggested deleting the second sentence.

In the case of the third sentence, he suggested deleting the words « within the framework of a rational plan ». This would be much too long a job. It should be possible to act in terms of public opinion which is always changing. It must be possible to go on, even in part, without having to await the results of a general plan.

Finally, he did not clearly understand the scope of the second sentence.

THE PRESIDENT asked if Mr. BOYAUX would be satisfied with the following wording : « ...it is the same, to a still greater degree, as regards means of transport ».

Mr. BOYAUX suggested the following wording :

« Since the advent of railways, the possibilities of the various methods of transport by land, have greatly changed. And so have commercial and industrial needs. »

Paragraph 2 would be deleted.

As a matter of form, the third paragraph would be worded :

« It is necessary to reconsider the transport problem for each region, taking into account all existing means of transport. »

This wording does not include : « within the framework of a rational plan ».

Finally, paragraph 5 will be deleted.

Mr. MORGANTI (*Ministry of Transport, Italy*) wished to make a general remark. To limit the problem to the railway problem without mentioning transport in general, which exceeds the scope intended, it would be sufficient to say :

« It is necessary to reconsider the railway problem for each region, taking into account all existing means of transport. »

THE PRESIDENT did not agree with Mr. MORGANTI, and stated that it was better to consider the problem as a whole.

Mr. DEN HOLLANDER was agreeable to

leaving out the words « within the framework of a rational plan ».

The improvement of operating conditions on the main lines may safeguard the existence of secondary lines in many cases.

It must be possible to discover and apply partial solutions without having to go into the problem as a whole.

Mr. VREBOS (*Ministry of Communications, Belgium*) speaking as delegate of the Transport Department, said he was of the opinion that most of the speakers had gone a little beyond the actual framework of the question set. This is concerned solely with the economic aspect of closing down a line and the creation of a new line, whereas the discussions have been dealing with the general organization of transport, leaving the question of co-ordination on one side.

Contrarily to what has been stated, the Congress as a mixed organization can take into account the aspect of collaboration with the other methods of transport.

As a Government delegate, he did not wish to meddle in discussions mainly concerning the railways. He suggested, however, introducing as an introduction a paragraph worded as follows :

« The economic aspect of closing down certain lines and building new railway lines is one particular side of the more general economic, social, and at times political problem of the organization and co-ordination of transport. On the Government plane, considerations based on the economic and social cost of transports should dictate the solution. On the plane of actual railway operation,

it is the economic cost which is the most important factor.

« The origin of the problem lies above all in the great evolution of methods of transport since the creation of the railways, as well as in changes in commercial and industrial needs. »

With a foreword like this, he would agree to the text suggested by Mr. BOYAUX and suggested leaving out the last paragraph.

THE PRESIDENT : The problem concerns both the railways and the governments. In the two cases discussed, the conclusions reached need not necessarily be divergent. An examination of the two aspects of the problem may lead us to a conclusion which will satisfy all the interests concerned.

Mr. VREBOS : The conclusions are not divergent in actual fact, though the factors concerned sometimes are, such as the cost.

Mr. MOULART pointed out that in his report he observed that when examining the repercussions of a substitute service, it was not the cost which should be taken into account, but rather the savings that could be made. The latter are, in general, much less than the cost.

Consequently, we should compare not the cost of a railway service with the cost of a road service, but the saving made by the railway with the cost of a road service.

THE PRESIDENT thought it would be possible to find a text which would satisfy everyone. He suggested setting up a sub-committee to draft a new text

of Summary 1. He suggested that Messrs. VREBOS, BOYAUX and the two Reporters sit on this sub-committee. (*The Section agreed.*)

Summary 2 :

2. In order to enable the railways to fulfil under the most economical conditions their role of means of transport as a public utility, they should be authorized to use and work in every case the most rational mode of transport (combination between rail, road, etc.) without restrictions or without needing special licenses.

This solution will give to the customers the best guarantee for security, comfort, and adequacy of service, and to the railways an assurance of maintaining their receipts.

Mr. DEN HOLLANDER was rather apprehensive regarding the words « in every case » in the English text, « dans chaque cas » in the French text.

Mr. MORGANTI as a delegate to the Railway Congress and delegate to the European Economic Commission reported that at Geneva it had already been decided what constituted a « situation of parity between railway and road undertakings ».

The formula « without restrictions nor special licence » did not appear to agree with this principle which had been adopted by the Governments.

Mr. DEN HOLLANDER suggested deleting the words in question.

Mr. MOULART : It is only question of substitute services, not of creating new services. We are keeping within the framework of the question.

Mr. DEN HOLLANDER insisted that the words « in every case » be deleted.

THE PRESIDENT submitted the matter to the Meeting and the suppression was agreed.

He then asked if the words « without restrictions nor special licences » should be deleted.

Mr. SJÖBERG suggested retaining the words « authorized without licence » and leaving out « without restrictions ».

Mr. MOULART asked that it be added that the authorization should be a formal authorization without it being necessary to ask for it as a preliminary.

Mr. GIRETTE suggested « of right ».

Mr. VREBOS as a Government delegate and to conform with the principles agreed at Geneva, suggested the formula :

« They should be authorized, within the framework of existing legislation, to use and work in every case the best method of transport. »

This amounts to deleting the words : « without restrictions nor special licences » and replacing them by « within the framework of existing legislation ».

After a remark made by the PRESIDENT, Mr. VREBOS proposed to say : « They should be authorized within the framework of existing legislation and preferably on a footing of equality with other methods of transport, to use and work in every case... »

Mr. BOYAUX wished the text to be completed as follows :

« ...in the framework of the existing general legislation... »

THE PRESIDENT asked to Mr. VREBOS : if we talk about general legislation, should the railways and the private company be on the same basis in connection with the provision of these substituted services? There must be a certain preference in favour of the railway, because, as has been said many times, generally when discontinuing a railway service, why substitute a road service? Not primarily to give additional services, but rather to decrease total costs, and there will be no profit or only a small margin for profit. Therefore, one cannot get the private company to work on this basis, and it is very natural that there should be a preference for the railway-owned buses and lorries within the framework.

Mr. VREBOS said that he agreed with the PRESIDENT's point of view. However, it must not be forgotten that the Governments should put the railway on the same equal footing as other transport undertakings, when it is a question of certain methods of transport. That was why he suggested the expression : « within the framework of existing legislation ».

In Belgium, automatically, and within the framework of the law, when the passenger services were suppressed on a railway line, the S. N. C. B. had the priority in organizing another service.

It was not the same however in the case of goods transport; there was no priority in this field.

Mr. COTTIER (*Central Office of International Railway Transport*). The Swiss law governing the State Railways contains a clause which authorizes them, under certain conditions, to modify their ser-

vices. But they are not completely free, as the roads belong to the cantons. In the case of privately owned railways, the position is different. The above law does not apply to private railways. Consequently, it is not possible to talk about « existing general legislation ». It would be better to say « appropriate legislation ».

In Switzerland, the law authorizes the conceded company to modify the method of transport, for example to change over from rail to road.

The State Railways are of the opinion that it would be quite unreasonable to turn electrified lines, running on the public supply, into bus services.

The principle is agreed that road services have a right to the same subsidies as the State services and the railway services.

Mr. MORGANTI said that Mr. MOULART had stated that the question is confined to services which have been suppressed. If this summary also apply to the problem of opening new lines, we are digressing.

THE PRESIDENT recalled that a sub-committee had been constituted to consider a new wording of Summaries 1 and 2; and the new text will be submitted during the afternoon session to the Meeting.

— The Meeting adjourned at 12.30 p.m.

Meeting of Tuesday (afternoon), 10th June 1952.

President : Mr. E. UPMARK,

THE PRESIDENT opened the meeting at 2.30 p.m. and advised members of the

text of Summaries 1 and 2 drafted by the sub-committee :

Summary 1 :

« The economic aspect of :

« a) the closing of existing railways;

« b) the construction of new railways constitute a special aspect of the general economic, social and, at times, the political problem of the organization and co-ordination of transport.

« The problem has its origin in the fundamental changes in the means of transport since the coming of railways, as well as in the changes which have taken place in commercial and industrial requirements.

« It is therefore necessary to re-examine the transport problem in relation to all the existing forms of transport. This examination must be carried out in such a way as to determine the means of transport to be abandoned and the new forms to replace them. »

Summary 2 :

« 2. — In order to enable the railways to fulfil, under the most economic conditions, their role as general transport undertakings, they must be empowered, within the general framework of transport legislation, with a priority right for the substitute services, to provide and to operate the most economic form of transport.

« This solution will assure transport users the best guarantee of safety, comfort and adequacy of service. »

THE PRESIDENT said that in view of the new wording of Summaries 1 and 2, perhaps Summary 3 should be deleted.

— The text of Summary 3 is as follows :

3. In such a system of public transportation, road transport is in principle used as a means of regional collection and dispersal from and to certain concentration points situated on the most important railway lines.

Owing to these conditions road may be substituted for rail service in such regions.

LORD HURCOMB stated that the new text proposed for Summary 2 represents a great weakening of the conclusion as originally drafted. The words in the English text, which say that the Railway Administrations ought to be allowed to provide road services without restriction have disappeared. To limit their rights by saying that they must do it « within the general framework of transport legislation », can mean anything one chooses in any particular country.

The first three summaries might be suppressed; some of the English representatives would like to suggest a new wording for Summary 3, or the following added to the original text :

« Experience shows that such substitution is best arranged and administered under one control and subject to a single financial interest.

« Complementary rail/road service has never been attainable where there is far-reaching competition between separate rail and road undertakings. »

He thought that that was the general sense of the various reports that have been made and that, by suppressing that wording altogether, the Congress is taking refuge in some very vague generalities, which are not likely to carry much weight, either with transport administrations or with governments and declared that he would like to hear what other delegates

have to say on that matter. He is prepared himself to accept the re-draft of Summaries 1 and 2 without pressing for further alterations.

THE PRESIDENT said that LORD HURCOMB had reason, but it was a compromise. The parliamentary method of the majority vote could be used, but he doubted whether this was advisable in the case of a meeting like the present one.

In the case of Summary 3, he recognized that in its original form, it is only question of generalities and it should be completed as suggested by LORD HURCOMB.

THE PRESIDENT put Summaries 1 and 2 to the vote.

— *Summaries 1 and 2 were adopted.*

MR. SANTORO wanted to ask MR. SJÖBERG, before Summary 3 was voted, on whether in the text « road transport used as a means of regional collection and dispersal » referred solely to road transport organized by the railway.

MR. SJÖBERG replied in the affirmative. It was only a question of transport organized by the railways.

MR. SANTORO agreed that the text should be deleted if this was so.

LORD HURCOMB to support his point of view recalled that MR. SJÖBERG's report, on page 521 of the English text, recorded as a fact that :

The experience of railways show that, if they are to provide efficient over-all transport services, they must have the facility of using buses and lorries, either in a co-

ordinated rail/road service or for a purely road service. Through such an integrated service, immense economy itself can be obtained.

THE PRESIDENT summarizing the discussion, stated that there is two suggestions : delete Summary 3, or complete it as suggested by Lord HURCOMB.

Mr. SJÖBERG gave an explanation of an apparent contradiction of a statement in his report. The conclusions are more restricted than the report, owing to the aspects under discussion being solely « discontinuing service on old railway lines ». This is why there is a certain contradiction between the conclusions and the general discussion; he agrees with Lord HURCOMB, that it would be most appropriate to have these general references to the whole transportation system of a country.

Mr. COTTIER remarked that Section III had suggested a summary very similar to Summary 3 now under discussion, since it speaks of transport by means of containers and centre stations.

The wording suggested by the Special Reporter is very judicious; in modifying it there is a risk of getting a certain contradiction between the summaries of the Section III and those voted by this Section.

Mr. BOYAUX would be in favour of retaining Summary 3 if the last sentence was worded as follows :

« In this connection, they can be substituted, at the responsibility of the railway, for railway transport in these districts. »

Mr. VREBOS agreed to this amendment.

THE PRESIDENT agreed with Mr. BOYAUX suggestion and recalled the proposal made by Lord HURCOMB.

Mr. VREBOS suggested retaining Mr. BOYAUX's wording with the addition of a qualifying phrase that would make it acceptable to Lord HURCOMB : « In this connection, they can take the place, under the best conditions, of railway transport in these districts, under the responsibility of the railway ».

Lord HURCOMB declared that if Mr. BOYAUX's text is accepted, it is better to say « most easily realized » than « best realized ».

THE PRESIDENT : The expression « most easily » is purely axiomatic. Lord HURCOMB and Mr. SJÖBERG want something more positive.

Mr. VREBOS remarked that this might lead to confusion.

THE PRESIDENT asked if Mr. VREBOS would agree if the expression « best » were replaced by « more easily ».

Mr. VREBOS agreed.

THE PRESIDENT put the following text of Summary 3 to the vote :

« 3. In such a system of public transportation, road transport is, in principle, used as a means of regional collection and dispersal from and to certain concentration points situated on the most important railway lines. Under these

circumstances, road transport may be substituted, under the responsibility of railways, for rail services in such regions.

« Experience shows that such substitution is most easily arranged and administered under one control and subject to a single financial interest.

« Complementary rail/road service has never been attainable where there is far-reaching competition between separate rail and road undertakings. »

— *This text was adopted as Summary n° 3.*

Summary 4 :

4. The closing down of a line or the substitution by railway companies of road service to rail service must generally be authorized by the government.

When the government does not agree to the granting of this authorization for reasons opposed to the economic interests of the railways, these should receive compensation for losses on operation of the line.

Mr. PHILLIPS (*British Railways*) proposed the following amendment :

« The closing down of a line or the substitution by railway companies of road services for railway services must be authorized for economic reasons.

« The railways must be compensated in some way if they are required to continue to operate a line which is unproductive from the point of view of receipts. »

Lord HURCOMB wished to modify this text as follows : « ...compensated by the appropriate authorities ».

Mr. GIRETTE feared that this wording went too far.

Whilst agreeing that a non-productive line, according to Lord HURCOMB's standards, might have a deficit of 50 % and supposing that it was desired to substitute road services, it is certain that this is in the hope of reducing this deficit to some 25 %.

The government cannot be asked to repay all the deficit if it does not authorize the substitution. It can only be asked to repay the part of the deficit caused by the fact that it will not authorize the substitution.

Mr. MOULART is of the opinion that in the present state of railway accountancy, it is difficult to determine accurately the revenue from a given line. We must stick to the idea of « reducing the deficit ».

Mr. GIRETTE asked the question : « And if the government says no ? »

Mr. MOULART answered that under these conditions, the government should pay compensation on the basis of the reduction in the deficit which the railway cannot realize.

Mr. VREBOS suggested wording the text as follows :

« The suppression of a line or the substitution by the railway of road or overland transport for railway transport should be subject to authorization.

« When such authorization cannot be given for reasons opposed to the economic interests of the railway, compensation to an amount equal to the saving expected from the suggested measures should be granted to the railway. »

THE PRESIDENT said that he understood the last sentence as follows : « ...the railways should be compensated in one way or another by an amount equivalent to the potential savings ».

Mr. DEN HOLLANDER considered that there was no practical value in adopting such a text. The government would say to make economies, improve the working, invest new capital, in order to reduce the operating costs. He suggested to be very careful in the new wording.

Mr. VREBOS suggested that in the last suggestion, the words « in one way or another » should be left out.

Lord HURCOMB agreed with Mr. DEN HOLLANDER and declared that in order to be careful he had not mentioned the word « government » in his proposal.

Mr. PHILLIPS suggested in the case of the English text « Railway Administrations » instead of « Railway Companies ».

THE PRESIDENT submitted the following text to the Meeting :

« 4. The closing down of a railway, or the substitution by a Railway Administration of a road service for a rail service, must be permitted on economic grounds or, alternatively, the railway must, in some way, be compensated by an amount equal to the potential savings. »

— *Summary 4 was adopted.*

Summary 5 :

5. Some railway companies consider total or partial suspension of rail service as the

principal measure to be taken for deficit lines.

However the deficit of a line depends on many factors, among them the tariffs applied. It is generally difficult to determine the minimum traffic required to avoid deficit on operation.

Nevertheless, investigations of feeder or local lines made by some companies have shown that a maximum annual traffic of the magnitude of 250 000 traffic units (*) per kilometre of line can be carried out more economically by road, even on the hypothesis of totally maintaining the existing railway rates.

(*) i.e. the sum of passenger-kilometres and ton-kilometres.

Mr. GIRETTE was reluctant to speak of deficit lines, as it is difficult to define exactly what a deficit is.

He suggested another wording :

« It is generally agreed that total or partial closing down of the railway services is advisable on lines with very little traffic.

« Investigations carried out by some railways in the case of « feeder » lines with very little traffic have shown that when the annual traffic is still 250 000 traffic units per kilometre of line, it is often more economical to assure this traffic by means of road services rather than railway services, with the hypothesis that the railway rates are retained. »

THE PRESIDENT asked what was the practical bearing of this suggestion.

Mr. GIRETTE answered that it is to replace the very vague idea of deficit lines by the idea of « lines with little traffic ».

The second paragraph takes up in a slightly different form the 3rd point of Summary 5 suggested by Mr. SJÖBERG,

with the modification that the figure of 250 000 traffic units, spoken of in the text, covers both passengers and goods. Now, very different results will be given according to whether passengers or goods predominate.

Messrs. MOULART and SJÖBERG agreed.

Mr. SANTORO wished to know if the figure of 250 000 units referred to studies or actual experience. According to Mr. MOULART's report, it seemed it should be actual facts.

THE PRESIDENT replied that in the text suggested by Mr. GIRETTE, it is a question of studies.

Mr. MOULART suggested saying « studies and realizations ».

Mr. PHILLIPS expressed his agreement with this suggestion.

THE PRESIDENT put to the vote Summary 5 suggested by Mr. GIRETTE with the amendment suggested by Mr. SANTORO's remark. The summary would read as follows :

« 5. It is generally admitted that the partial or total suppression of the railway service should be achieved on lines with very light traffic.

« Studies and realizations which have been made in this sphere by certain Railway Administrations have indicated that where traffic is less than 250 000 traffic units per annum and kilometre of line, then it is more economical to ensure traffic by road rather than by rail on the basis of retaining railway rates. »

— *Summary 5 was adopted.*

Summary 6 :

6. The experiences of some European railway companies indicate that withdrawal of passenger trains on mixed traffic lines and their replacing by bus service will involve a noticeably higher daily mileage run as compared to the passenger train service.

Nevertheless, the withdrawal of passenger trains brings the greater part of the total saving arising from the closing of the line.

THE PRESIDENT wondered whether the word « nevertheless » should not be left out. In fact the buses run at more frequent intervals and *ipso facto* attract new clients.

Mr. GIRETTE in the same spirit suggested rewording the sentence as follows : « It would make it possible at the same time, together with an improvement in the services... ». This wording did not stop at leaving out the word « nevertheless », but stated that the service was improved whilst making it possible to obtain most of the savings expected from the suppression.

Messrs. MOULART and SJÖBERG signified their approval.

Mr. GIRETTE in view of the fact that the Special Reporter and Reporter were agreed, suggested the following text for the 2nd paragraph :

« While improving the service, it makes possible the achievement of the major part of the economies which could be obtained by complete closure. »

(*Agreed.*)

THE PRESIDENT read the following modified text :

« 6. The experience of certain

European Railway Administrations indicates that the withdrawal of passenger services on lines with a mixed traffic and their replacement by road services will lead to an appreciable increase in the daily mileage operated in comparison with the passenger train service.

« While improving the service, it makes possible the achievement of the major part of the economies which could be obtained by complete closure. »

— *Summary 6, worded in this way, was adopted.*

Summary 7 :

7. The withdrawal of freight trains and the closing down of the line cannot generally be considered unless the customers have the possibility of loading and unloading their freight at another station — without excessive extending of the haulage distances — or unless the railways can carry out road transport without the additional expenses exceeding the realized economies.

In the latter case, it becomes advisable to use either, on the one hand, large containers, or similar carrying equipment, or on the other hand, wagon-conveying trailers.

It should be pointed out that on mixed traffic lines suspension of freight traffic generally brings only fairly limited savings.

No modification was suggested to this text, and *Summary 7 was adopted.*

THE PRESIDENT went on to the examination of Summary 8, relating to heading *b)* of the question, i. e. the construction of new railway lines, and remarked that a general discussion would last too long and he suggested to read these summaries straight away.

Summary 8 :

8. The building of new lines is practically

no longer justified except in incompletely developed or exploited regions or countries.

It usually arises out of the need for freight transport facilities.

Mr. HARRINGTON wanted to add a third paragraph :

« There may, however, be justification for the construction of urban and sub-urban passenger lines to relieve the overcrowding to existing rail and road services and to provide for growth of a city and the spread of its population. »

Mr. MOULART stated that this text was the result of the information received from the French speaking Railway Administrations and he asked Mr. SJÖBERG if he had received similar information?

In the case of narrow gauge lines, the substitution of a standard gauge line is a problem similar to that of turning a single track line into a double track line. It is a modernization not a new construction. This is the case on certain lines of the Belgian Congo with 0.75 m (2' 5 1/2") gauge lines. As for urban services, it is obvious that these can be worked by the main line railway.

Mr. SJÖBERG proposed to make a paragraph of the two existing paragraphs of Summary 8, and a new second paragraph comprising the addition suggested by Mr. HARRINGTON.

THE PRESIDENT seeing that no one else had anything to say, read Summary 8, amended as hereafter :

« 8. The building of new lines is practically no longer justified except in incompletely developed or exploited re-

gions. It usually arises out of the need for freight transport facilities.

« There may, however, be justification for the new construction of urban and suburban passenger lines in order to relieve the overcrowding of rail and road services or to provide for the growth of a city and the spread of the population. »

— *Summary 8 was adopted.*

Summary 9 :

9. According to estimates made by various railway companies the minimum traffic density justifying the building of a new separate line should amount from 300 000 to 500 000 tkm per annum per kilometre of line.

When it is a question of a new feeder line to an existing line or network, the profitability of the new line can be ensured by a lesser traffic than the one mentioned above.

Smaller traffic volumes can be handled more economically by road, provided roads are available to carry heavy trucks with trailers.

Mr. COTTIER stated that in this summary mention is very prudently made of 300 000 to 500 000 traffic units, whereas in Summary 5 mention is made of 250 000 traffic units. He wished to have some information about this figures.

Mr. SANTORO asked whether it was a question of tonne-kilometres or kilometric units, while traffic units was agreed for the sum of passenger-kilometres and tonne-kilometres.

Mr. MOULART recalled that the summary in the report refers to an investigation carried out in the Colony covering goods traffic only. That was why he spoke of tonne-kilometres,

Mr. SJÖBERG pointed out that in Summary 8, it is question of the construction of new lines in incompletely developed countries and such construction is usually necessitated by the requirements of freight traffic.

After this exchange of views, *Summary 9 was adopted with the following wording :*

« 9. According to estimates made by various Railway Administrations, the minimum traffic density justifying the building of a new separate line should be between 300 000 and 500 000 traffic units per annum and per kilometre of line.

« When it is a question of a new feeder line to an existing line or network, the return on the capital of the new line can be ensured by a lesser level of traffic than that referred to in the preceding paragraph.

« Smaller volumes of traffic can be handled more economically by road, provided that roads are capable of carrying heavy vehicles with trailers. »

Summary 10 :

10. It would be easier to avoid deficit on operation and even to ensure a certain degree of rentability on a new line or on an existing light traffic line if the railway were authorized to diverge from the general rule of applying uniform rates on all the lines of the network.

The railway should, therefore, within certain limits, be allowed to charge on these new or light traffic lines higher rates than the ordinary ones.

This solution would, among other things, enable the railway to avoid the closing down of certain deficit lines and would also promote the construction of new lines.

THE PRESIDENT wished a discussion on the sentence « the railway should, there-

fore, within certain limits, be allowed to charge on these new lines higher rates than the ordinary ones ».

Mr. COTTIER pointed out that the question of differential rates on the same undertaking for lines with different amounts of traffic was discussed at length at Geneva.

The great majority of government representatives did not feel they could recommend this to their government. It is a blow at the sacred principle of the solidarity of all the lines.

In Switzerland, the population want the private companies to be taken over by the State in order that the rates may be lowered to the level of those on the State lines.

Subsidies have been granted to railways to cut out surcharges, which were justified by the higher constructional or maintenance costs.

France is engaged on making a differential in the rates based on a commercial conception. This is an innovation which will have enormous repercussions on the economy of the country.

He regretted the abandoning of the principle of solidarity between the poor and the rich districts.

Mr. SANTORO found Mr. COTTIER's remarks very much to the point. He thought it would be a good thing to retain the text of Summary 10 as it is. He suggested however that the word « might be » should be replaced by « should be ». He hoped that with this modification Mr. COTTIER would agree.

Mr. GIRETTE stated that the rating innovation taken in France was inspired by the desire to « model » the rates on the costs. It is a return to the idea of a rating assessment. But it is necessary to choose and decide if the principle of competition is better than the principle of equality or if it is not.

He suggested adopting the PRESIDENT's suggestion.

THE PRESIDENT recalled that it had been suggested that the text of this summary should be worded as follows :

« The railway should, under certain conditions, study the possibility of applying higher rates than the usual rates on these lines. »

The second sentence would be : « The application of a similar policy to lines with a light traffic might be desirable in those cases where it would make possible the continued operation of these lines ».

Mr. COTTIER wished to support the new wording. The resolution contained the idea of a subsidy by the State. It is not certain that the application of higher rates on lines with little traffic would increase the traffic on such lines; on the contrary, the public might leave the railway and try the road services.

THE PRESIDENT suggested to ask Messrs. GIRETTE, MOULART and SJÖBERG to draft a new text, which will be submitted to the Section at to-morrow's meeting. (*Agreed.*)

— The Meeting closed at 5 p.m.

Meeting of Wednesday 11th June 1952.

President : Mr. E. UPMARK.

THE PRESIDENT suggested that the text of the summaries should be read over. Mr. MOULART would read in French and Mr. SJÖBERG in English the text of the summaries as modified during the previous meetings. (*Agreed.*)

Summary 1. — Adopted.

Summary 2. — THE PRESIDENT proposed to add « under certain circumstances » after the word « legislation » in the 1st paragraph of the English text, which gives effect to « éventuellement » which was inserted in the French text.

Following a suggestion made by Mr. PHILLIPS, it was decided to replace the word « safety » by « dependability ».

— *Summary 2 was adopted with these amendments to the English text.*

Summary 3. — Mr. GIRETTE reported that an Italian colleague found the following wording too general : « Under these circumstances, road transport may be substituted, under the responsibility of the railway, for rail services in such regions ». It might be thought that all the transport in a district would be transferred to the road.

He suggested saying :

« Under these circumstances, road transport may be substituted, within the bounds needed, and under the responsibility of the railway... »

Mr. SANTORO preferred to leave out the words « in such regions ».

— The Meeting agreed to these amendments.

THE PRESIDENT suggested also to make the second and third paragraphs into one and read the modified text of this summary :

« 3. In such a system of public transportation, road transport is, in principle, used as a means of regional collection and dispersal from and to certain concentration points situated on the most important railway lines. Under these circumstances, road transport may be substituted, within the bounds needed, and under the responsibility of the railways, for rail service.

« Experience shows that such substitution is most easily arranged and administered under a single authority. Complementary rail/road service has never been attainable where there is far-reaching competition between separate rail and road undertakings. »

Summary 4. — Adopted.

Summary 5. — THE PRESIDENT pointed out that in the English text, « traffic units per annum » should be amended to read : 250 000 traffic units per annum and kilometre of line ».

Mr. SANTORO wished to delete the words « on the basis of retaining railway rates ». It is a question of making a comparison between several methods of transport at no matter what rates.

Mr. MOULART said that starting from the hypothesis that there is no change in the rates; if you alter these, the limits will be changed.

Mr. SANTORO withdrew his suggestion, but was still not convinced.

— *Summary 5 is adopted, with the modification of the English text.*

Summary 6. — After an exchange of views between the PRESIDENT, Messrs. CUTTICA, MOULART and BOYAUX, *Summary 6 was adopted.*

Summary 7. — *Adopted.*

Summary 8. — *Adopted.*

Summary 9. — *Adopted.*

Summary 10 (original text amended) :

« 10. In order more easily to ensure the return on capital on a new line, Railway Administrations might be authorized to depart, in certain cases, from the general obligation of applying uniform rates throughout the system; they should, therefore, put into force higher rates on these lines than those generally applicable.

« The application of a similar policy to lines with a light traffic might be desirable in those cases where it would make possible the continued operation of these lines. »

— *Summary 10 was adopted after a*

slight amendment of the first paragraph as follows :

« 10. In order to ensure more easily the return on capital on a new line, Railway Administrations might be authorized to depart, in certain cases, from the general obligation of applying uniform rates throughout the system; and therefore to put into force higher rates on these lines than those generally applicable.

« The application of a similar policy to lines with a light traffic might be desirable in those cases where it would make possible the continued operation of these lines. »

THE PRESIDENT thanked all the delegates for their collaboration. In spite of the complexity of the problem the work had been carried out satisfactorily. He wished to thank in particular the Vice-Presidents, Mr. SJÖBERG, *Special Reporter*, and Mr. MOULART, *Reporter*, for their very full and complete work and the active part they had taken in the discussions.

— The Meeting rose at 10 a.m.

— *The complete text of the Summaries for Question III, ratified by the Plenary Meeting, appears on pages 838 to 840 of this Bulletin.*

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

Enlarged Meeting of the Permanent Commission at Stockholm
(9th-11th June 1952.)

Plenary Meeting held on the 11th June, 1952. PROCEEDINGS.

Mr. F. H. DELORY, *President of the Association, in the Chair.*

— The meeting opened at 10 a. m.

THE PRESIDENT stated that the first point on the agenda was the examination of the Summaries relating to questions I II and III, as adopted by the Sections.

He requested the *General Secretary*, Mr. GHILAIN, to read in turn these Summaries.

QUESTION I :

No objection was raised during the reading of the French text of the Summaries.

With regard to the English text, a slight alteration was made to the last paragraph of Summary 4 : this paragraph was broken into two sentences; the first sentence ending at the word « mistake » and the second beginning with the words : « This would lead... ».

— The final text of the Summaries of Question I appears in the Appendix, pages 829 to 833 of this Bulletin.

QUESTION II :

Summaries 1 and 2 were adopted without discussion.

In the case of Summary 3, Mr. CREM (*Belgian National Railways*) suggested to point out that the cost for the use of feeder sidings should be borne by the private firms.

Mr. UYTBORCK (*Principal Secretary for Section II*) stated that the English text was quite clear; therefore, it was only necessary to make the French text agree more closely with it.

THE PRESIDENT said that the French text would be altered by the Secretariat.

(The beginning of the French text of Summary 3 will be as follows : « En vue de réduire les frais à la charge des propriétaires d'embranchements particuliers... »).

The Summaries 4 and 5 were approved without comment.

With regard to Summary 6, the PRESIDENT drew attention to the fact that the third paragraph was to some extent a repetition of the idea expressed in Summary 5.

Mr. HARRISON (*President of Section III*) replied that in agreement with the Special Reporter, he thought it necessary to emphasize the point at the expense of a slight repetition.

Summary 7 was adopted without discussion.

THE GENERAL SECRETARY stated that the 2nd paragraph of Summary 8 should be modified as follows :

« Development of door to door technique should also aim at the maximum standardization of the equipment and thus facilitate combined traffics. »

Mr. CREM suggested to replace in the 1st paragraph of the French text the words « le développement de leur emploi serait favorisé... » by « le développement de leur emploi semble pouvoir être favorisé... ».

Summary 8 was adopted with these alterations.

Summary 9 was adopted after replacing in the last paragraph the word « limiting » by « reducing ».

In the French text of Summary 10, the words « en liaison » were cancelled.

Summaries 11, 12, 13, 14, 15 and 16 were adopted without modification.

— The final text of the Summaries of the Question II appears in the Appendix pages 834 to 837 of this Bulletin.

QUESTION III :

Summaries 1, 5, 6, 8, 9 and 10 were adopted without alteration. No comment was made.

Summary 2 :

The text was adopted after some exchanges of views between Messrs. GHILAIN, LENFANT (*Principal Secretary of Section IV*) and UPMARK (*President of Section IV*). The French text was not changed and the English text was put in harmony with the French text.

Summary 3 :

The text submitted was the subject of further discussions in which Messrs. UPMARK, GHILAIN, DORGES (*Ministère*

des Travaux publics et des Transports, France), GOURSAT (*Société Nationale des Chemins de fer français*), GARCIA LOMAS (*Spanish National Railways*) and MOULART (*Belgian National Railways*) took part.

Following this exchange of views, the following new wording was adopted :

« — 3. In such a system of public transportation, road transport is, in principle, used as a means of regional collection and dispersal from and to certain concentration points situated on the most important railway lines. Under these circumstances, road transport may be substituted, within the bounds needed, and under the responsibility of the railways, for rail service.

« Experience shows that such substitution is most easily arranged and administered under a single authority. Complementary rail/road service has never been attainable where there is far-reaching competition between separate rail and road undertakings. »

With regard to the 2nd paragraph, Mr. DELORY, *President*, said that it would be advisable to state the *authority* having to organize the substitute service.

A discussion took place on this point of view between the PRESIDENT, Messrs. MOULART, DORGES and GOURSAT, and it was decided that it is the Railway Administrations who must organize and operate the substitute road services. A notice to this effects will appear in the Summaries.

Summary 4 :

Following an exchange of views between THE PRESIDENT, Messrs. MOULART, GIRETTE (*Société Nationale des Chemins de fer français*), DI RAIMONDO (*Italian*

State Railways), PERRONE (*Ministry of Transport, Italy*), GOURSAT and DORGES, it was decided to adopt the following new text, submitted by Mr. GOURSAT.

« Whenever economic reasons justify such a procedure the Railway Administrations must be permitted to suppress a railway service or to substitute road services for railway services.

« Whenever this permission is refused, the railway should be indemnified for the economies which the proposed change might have allowed it to realize. »

Summary 7 :

Concerning the 2nd paragraph, following a brief discussion which took place between Messrs. DORGES, CREM, PERRONE and THE PRESIDENT, it was decided to replace the words « large containers » by « containers », nothing was changed in the remainder of the Summary.

— The final text of the Summaries for Question III appears in the Appendix, pages 838 to 840 of this Bulletin.

THE PRESIDENT went on to the last point on the agenda, concerning the invitation, received from India, to hold a meeting of the Permanent Commission at New Delhi in 1953, on the particular occasion of the Centenary of the Indian Railways.

THE PRESIDENT reported on the talks which were taking place on this subject with Mr. BADHWAR, Representative of India, and informed the Meeting of the results of same.

(See the Account of the Meeting of the Permanent Commission of the 11th June 1952, page 756 of this Bulletin.)

The agenda being exhausted, the PRESIDENT declared the Meeting closed and expressed the hope that the resolutions adopted during the technical meetings and which are of first importance, will constitute a precious and sure guide for all specialists in railway matters. The results obtained have only been attained owing to the numerous and fruitful collaborations allowed to the Association.

He expressed his most sincere thanks to the Delegates, the Swedish Authorities and in particular, to Mr. UPMARK, President of the local Organizing Commission whose stimulating activity and direct participation to the works greatly contributed to the success of the Meeting.

He addressed his heartiest congratulations to the Reporters, Special Reporters and Secretaries for their remarkable collaboration and mentioned in particular Mr. MARD, *General Secretary of the local Organizing Commission*, for his untiring devotion to duty in the course of the preparation and during the Meeting.

Finally, he underlined the important part played by Mr. GHILAIN, *General Secretary*, in the particularly heavy tasks, which the organization of the Session placed upon him and said that everyone had appreciated the valuable results obtained.

(Loud applause.)

Mr. UPMARK, *General Manager of the Swedish State Railways*, expressed, on behalf of everybody, his most sincere and heartiest thanks to Mr. DELORY.

(Long and loud applause.)

— The session was closed at 12.30 p. m.

SUMMARIES

Adopted at the Plenary Meeting of the Permanent Commission
of the 11th June 1952.

1st SECTION : WAY AND WORKS.

QUESTION I.

A. — What are the new safety measures taken for level crossing of railway tracks by the road in respect of the density, high tonnage and speed of the road traffic?

In particular automatic signalling and closing of level crossings without keepers, worked by the trains themselves.

Technical and statistical investigation in order to ascertain the relative safety of :

1^o level crossings with keepers, with the different devices to announce the arrival of the trains to the keepers;

2^o level crossings without keepers :

- a) without any self-acting device announcing the arrival of trains;
- b) with automatic signalling for the road-users;
- c) with automatic signalling completed by half- or entire gates.

B. — Cases of level crossing of railway tracks by a road with a railway (urban or suburban) running alongside.

Summaries.

QUESTION I-A.

« 1. — The changes that have occurred
« in the character of the road traffic in
« modern times, owing to the develop-
« ment of motor traffic and the progres-
« sive increase in the number, speed,
« and tonnage of such vehicles, mean
« that the way level crossings are operated
« and equipped must be carefully studied

« by the Railway Administrations and
« public authorities in order to make the
« necessary modifications.

« In endeavouring to improve the
« safety at level crossings, financial consi-
« derations are of great importance, as
« the general interest makes it necessary
« to see that the capital available is
« spent to the best purpose, as always,

« These considerations make it necessary
« for the Railway Administrations and
« authorities controlling them to grade
« as far as possible, the way level cross-
« ings are equipped according to the
« possible risks, and on the other hand
« to make every possible economy with-
« out hazarding the necessary degree of
« safety at those level crossings where
« such economies are possible in order
« to finance the cost of equipping more
« elaborately other more dangerous level
« crossings.

« 2. — In general, substantial improve-
« ments have been made in many coun-
« tries since the Cairo Congress regarding
« safety at level crossings, particularly as
« regards :

« — the facilities given to road users to
« warn them of the existence of all kinds
« of level crossings and to enable them
« to see when the gates are shut at level
« crossings with keepers;

« — the methods of advising the
« approach of trains given to the keepers
« at level crossings with keepers;

« — improvements to the types of gates.

« The regulations of the Geneva Pro-
« tocol regarding the indication of the
« presence of level crossings have been
« supported by a very large number of
« countries, which results in an improved
« standard of safety both for the usual
« road users and for road users making
« international journeys.

« 3. — There is now available very
« reliable equipment which enables an
« automatic signal giving warning of the
« approach of a train to be given to road
« users coming up to level crossings

« without keepers. Such equipment can
« be installed and operated relatively
« economically, particularly if no positive
« line clear light is included, as this
« involves using a large amount of
« current and the obligatory use of the
« power from local supply.

« 4. — Apart from the above consi-
« derations of economy, the warning of
« the approach of trains is given by an
« automatic signal with a degree of
« certainty at least equal to or even
« superior to that given by gates closed
« by a keeper because the latter involves
« the possibility of the failure of the
« human element, whereas the automatic
« signal can be arranged so that the
« failure is on the side of safety.

« An exception should be made, how-
« ever, of level crossings with keepers
« protected by signals with mutual inter-
« locking between such signals and the
« gates in which case the train is stopped
« if the keeper makes any mistake.

« This would lead to serious drawbacks
« financial and practical as regards the
« flow of road traffic and the regularity
« of the trains.

« 5. — There remains a great deal to
« be done however to discipline road
« users, as the danger signal, in the case
« of automatic signalling, unlike a gate,
« at least when such a signal is merely
« a coloured light, is not a material
« obstacle preventing the level crossing
« being run onto. It is to be feared that
« unless such discipline improves, acci-
« dents at level crossings without keepers
« where there is automatic signalling,
« will have more serious consequences,
« although in making such a comparison

« we must not overlook the risk of
« accidents owing to a road vehicle
« running into the gates of a level cross-
« ing with a keeper and thereby blocking
« the line, when had there been no gates
« the vehicle might have crossed over
« without danger.

« It appears that the addition of light
« automatic half-gates may cancel out
« the difference in the reactions of road
« users, according to whether they find
« themselves faced with the closed gates
« of a level crossing with a keeper or the
« automatic stop signal at a level crossing
« without a keeper. In addition, half-
« gates seem likely to lessen the special
« risks at double track crossings when
« the road user is tempted to cross as
« soon as one train has passed without
« considering another might be coming
« in the opposite direction.

« It is extremely desirable that in view
« of the special case of such double
« crossings, as for all level crossings
« moreover where there are no keepers,
« when cattle have to cross, the regu-
« lations should be clearly laid down and
« strictly enforced, wherever this is not
« yet done.

« 6. — In view of the probability that
« the system without keepers with auto-
« matic signalling is likely to be extended,
« it is very desirable in order to make it
« easier for international traffic to know
« and observe the regulations, that unifor-
« mity should exist as regards the follow-
« ing points :

« — type of signals;

« — whether there is or not a positive
« line clear indication;

« — the exact meaning of the danger

« signal given (absolute stop or permissive
« stop);

« — in the case of level crossings without
« keepers, the adoption of a road signal
« at a distance from the crossing showing
« whether the crossing in question is or
« not equipped with automatic signal-
« ling;

« — systematic use at the crossing itself
« of the St. Andrews Cross sign with a
« double cross in the case of double
« track line (or some other signal designed
« with the same object);

« — definition of what the road user
« should do when anything is out of
« order.

« 7. — Doing away with keepers is a
« definite source of economy. In addition,
« it is also of general interest in that
« labour is freed for use on more pro-
« ductive sections.

« There are a fair number of cases in
« which the characteristics of the level
« crossing : amount and kind of road
« traffic, amount of railway traffic, visi-
« bility, enable such a crossing to be
« operated as a crossing without keeper
« without signals with sufficient safety.
« Regulations concerning keeping the
« view open near level crossings are
« likely to facilitate the extension of this
« practice and also improve the safety.

« The question of deciding whether it
« is possible to substitute on a large scale
« the system without keeper with auto-
« matic warning of the approach of trains
« to that of having a keeper should be
« gone into very carefully. At the
« present time, it does not appear possible
« to decide the upper limits at which
« such a substitution is applicable, as

« such limits vary according to the
« education and discipline of the road
« users : in countries where automatic
« warning of the approach of trains is
« not widely used, it appears advisable
« to fix such limits very prudently, as
« they can always be extended later on.
« Moreover, it appears that the addition
« of automatic half-gates makes it possible
« to extend these limits, especially in the
« case of double track crossings. Such
« half-gates should be very light so that
« there will not be any serious conse-
« quences if they are run into. The
« addition of automatic gates right across
« the road is still more satisfactory as
« regards the behaviour of the road users,
« but this raises very serious problems
« should anything go wrong with the
« installation, so that their general use
« appears impracticable; automatic gates
« also raise the problem of what kind of
« distant road signal should be used.

« 8. — In the case of level crossings
« without keepers without signals, the
« installation of automatic signals giving
« warning of the approach of trains
« appears a solution to be recommended
« when an increase in the amount, speed
« and tonnage of the road traffic jeopar-
« dises the safety of the existing system
« and the problem cannot be solved in
« any other way, such as by reducing
« the speed of the road and railway
« traffic, increasing the visibility, under-
« taking various work such as cutting
« back banks and introducing regulations
« about keeping the view clear at level
« crossings.

« 9. — If the installation of automatic
« signalling device indicating the ap-

« proach of trains is required to improve
« the security on account of the change
« of the character of road traffic it is
« only fair that the major part of the
« expenses of such installation should be
« borne by the road authorities.

« Similarly, if such installation is to
« expedite the road traffic it is likewise
« only fair that the road authorities
« should contribute to the expense of this
« installation.

« 10. — There are cases especially on
« British Railways where because of the
« change which has taken place in the
« population and density and character
« of road traffic, private level crossings
« raise very complicated questions.

« In most of the other Administrations
« it would seem on the contrary that
« level crossings of this category do
« not raise any great difficulties.

« It appears desirable, however, not to
« increase the number of these crossings.
« Where new private level crossings are
« made it seems essential to insist that
« they should have at least the same
« degree of visibility as level crossings
« without keepers and without automatic
« signalling, and to take appropriate
« security measures in specially agreed
« cases at the expense of the road user.

« In the case of heavy road vehicles
« it is recommended that the users of the
« level crossings should give prior advice
« to the Railway Administration before
« using the crossing.

« It is also recommended to insist on
« rigid adherence to all obligations on
« the part of the users with regard to
« padlocking of gates.

« 11. — In general it is recommended
« that special consideration should be
« given to the methods adopted for the
« education of the public to ensure that
« drivers of all vehicles should approach
« and cross level crossings with care.

« 12. — The methods now used by
« the different Administrations to prepare
« statistics of accidents at level crossings
« make it very hard to come to any
« conclusions about them. Thus, whilst
« recognising the complexity of the
« question, the Commission expresses a
« wish that the uniform preparation of
« as detailed as possible statistical tables
« should be studied. »

QUESTION I-B.

« The problem of a level crossing at
« which a light railway or a tramway
« runs alongside the road seems to have
« been dealt with on more or less the
« same lines in the different countries.

« In principle, the level crossings in
« question have keepers.

« If the light railway or tramway does
« not run on sight, the crossing is exactly
« the same as that of the crossing of two
« railway lines, priority being given in
« principle to the main line trains.

« If the light railway or tramway line
« runs on sight at the level crossing, this
« is usually treated just like an ordinary
« level crossing, which is protected if
« necessary by signals on the line. In
« certain cases, derailling points have
« been fitted on the light railway or
« tramway line to protect the crossing
« when closed.

« The enquiry only revealed very rare
« instances of level crossings without
« keepers with automatic signalling at
« which a light railway or tramway line
« ran alongside the road. No particular
« measures appear to have been taken
« in connection with such level cross-
« ings. »

3rd SECTION : WORKING.

QUESTION II.

What are the quickest and most economical means to carry out door to door service for railway transports?

What are the best conditions of use of containers for small miscellaneous traffic (dimensions of the containers, conditions of ownership, tariffs)?

What are the packing types to be recommended?

Summaries.

« 1. — The ever growing cost of handling operations and the speeding up of competitive road methods oblige the railway increasingly to have recourse to improved technical methods in order to realise door to door transport with the maximum speed at the minimum cost and damage.

« 2. — The private siding still remains the most economical way of assuring the door to door technique, on condition that the capital costs are spread over a large number of wagons, that operating costs are reasonable, and that the siding is so laid out that the wagons can be brought right up to the required sites.

« 3. — In order to reduce the costs for the use of private sidings linked up with stations by lines common to several firms (feeder sidings), the railway ways should endeavour to ensure that the cost for the use of the feeder siding should be reasonable and consider to what extent it is profitable to share in financing the feeder sidings.

« 4. — Certain railways attach great importance to letting their clients have depots in their stations or goods depots under favourable conditions.

« 5. — Where it is not possible to build new private sidings or there is no justification for them, the container, the wagon-conveying trailer and the rail-road trailer are auxiliary methods which enable full loads to be taken to the client's premises, thereby assuring a close link between the railway and its clients.

« 6. — From the point of view of speed, provided the carting distance is short, there is not much to choose between the three methods.

« From the point of view of cost, the container (*) is the cheapest method for certain types of traffic but the road-rail trailer and the container « pa » which are more expensive in

(*) In this context the term « container » refers to a large container which can only be transferred between rail and road vehicles by means of a crane or similar appliances.

« capital outlay than the ordinary container, can, if the traffic is sufficient, be cheaper to run.

« The wagon carrying trailer, which is very expensive in capital outlay, can if the traffic is sufficiently important and the terminal distance short, be justified from an economic point of view in cases where it is impossible to build private sidings.

« The information available concerning comparative working costs is incomplete and inconclusive. A closer inquiry into costs is needed and a study aimed at reliable comparisons of all-in working costs of the various methods used to provide door to door service for the same kind of traffic in comparable circumstances. Many Administrations now have staff employed upon costing research and in the light of the reports presented, it is recommended that the Congress should promote a special inquiry into the costs, conducted by experts in modern costing technique, who would agree beforehand the precise information to be obtained, the elements of cost to be included and the costing technique to be used.

« 7. — Certain railways consider that the best way of assuring door to door services by means of containers is to make the greatest possible use of the usual cartage vehicles and standard wagons.

« Specialization of the equipment for transport by containers may involve the multiplication of types of equipment and the risk of less intensive and therefore more costly user.

« 8. — Where containers of the

« ordinary or « pa » type or road-rail trailers are the means employed for door to door transport, it seems that the development of their use would be assisted by the creation of centre stations, well equipped in all respects, served by direct trains and by complementary road transport facilities for feeding and distributing within the area covered by each centre station.

« Development of door to door technique should also aim at the maximum standardization of the equipment and thus facilitate combined traffics.

« 9. — Small containers of 1 to 3 cubic metres (35 to 106 cub. ft.) on wheels, large numbers of which are used on the continent of Europe, are operated in two different ways : in the one case, they belong to the transporter (railway or affiliated company), and in the other, to private firms. As a general rule, they are loaded by the user.

« The clientele seems to prefer containers of 1 to 2 cubic metres (35 to 70 cub. ft.).

« Privately owned containers (those belonging to consigning firms excepted) find it difficult to obtain a load for the return journey, chiefly on account of their specialization, so that the empty mileage tends to equal the loaded mileage, which is costly for the railway, even if empty containers are charged, owing to their low specific weight.

« The railway has every interest in reducing empty runs, either by a policy of acquiring its own containers (under its own management or farmed out), or by effective tariff measures.

« 10. — Pallets and box-pallets used
« in conjunction with fork-lift trucks or
« other similar lifting appliances can
« prove of real advantage in handling
« parcels, which are transported grouped
« into consignments of a certain size.

« The full advantage is taken of pallets
« only when they are conjointly used by
« the producer, the stockist, the trans-
« porter and the consignee. Their
« advantage increases according to the
« number of handlings involved.

« The parcels grouped into lots cor-
« responding to the capacity of the pallets
« and the power of the fork-lift trucks
« should remain if possible loaded on
« the same pallets throughout the jour-
« ney.

« The most economical method of
« operation appears to involve the use
« of standardized pallets from a pool,
« this pool being owned in common by
« the transporters and the business firms
« involved, but there are many difficulties
« to overcome.

« In any case, it is necessary to assure
« that the ownership of the pallets and
« the tariffs for empty and loaded runs
« should be so established that the
« railway receives a fair payment for the
« additional loads it carries.

« 11. — Packings justify their cost by
« the services rendered to the consignor
« and the transporter. The packing
« contains or holds the goods together
« and protects them; it often modifies
« their form. The consignor can use it
« for publicity purposes, without the
« cost being appreciably modified thereby.

« 12. — Effective packing makes it
« possible to reduce handling and depot

« costs, as well as the transport insurance
« premium paid by the consignor.

« 13. — The method of packing
« influences the cost of the transport and
« in particular the cost of handling,
« capital costs and maintenance costs for
« the rolling stock, as well as the sums
« paid out for damage.

« 14. — In order to meet requirements,
« packing must be : inexpensive, light,
« resistant, attractively presented. The
« dimensions and designs must allow
« for :

« — strength, easy stocking and handling
« of the packages;

« — suitability of loads;

« — best use of transport equipment and
« handling appliances.

« To achieve these objectives it is
« necessary to recommend the use of
« standardized packings which comply
« with certain criteria studied by the
« carriers in collaboration with the manu-
« facturers of packing and the consi-
« gnors.

« 15. — As opposed to heavy packing
« which can be used for several journeys,
« the present trend in commercial practice
« is to do away with the heavy costs
« involved in the transport of returned
« empties.

« Moreover, it is in the carrier's in-
« terest to avoid excessive re-use of
« packings, which results in a rapid
« weakening of their resistance, leading
« to damage.

« In view of the fact that the use of
« new (non-returnable) packing gives the

« greatest guarantee so far as solidity
« and hygiene are concerned, and pre-
« serves the good appearance of the
« goods, it therefore seems advisable to
« recommend its application in all cases
« where this method can be technically
« and economically introduced.

« 16. — The resistance and conse-
« quently the cost depend on the number
« of handling operations involved.

« As these tend to be more numerous
« in rail transport (apart from door to
« door service) compared with road
« transport, the railways find themselves
« in a weaker position than their com-

« petitors. In these circumstances the
« railways should :

« — endeavour to carry out a persuasion
« campaign for good packing and, at the
« same time, give the consignor the
« benefit of their experience and their
« laboratory tests;

« — apply if needs be the appropriate
« charges (such as adjusted charges
« including acceptance by the railways
« of greater liability in case of damage),
« which will only be applied to goods
« carried in approved new (non-return-
« able) types of packing, thus giving the
« consignor a share of the benefit derived
« from the use of adequate packing. »

SECTION IV. — GENERAL.

QUESTION III.

Economic aspects of :

- a) discontinuing service on old railway lines,
 - b) construction of new railway lines,
- with regard to the possibility of handling transport with other means.

Summaries.

« 1. — The economic aspect of :
 « a) the closing of existing railways,
 « b) the construction of new railways,
 « constitute a special aspect of the general
 « economic, social and, at times, the
 « political problem of the organisation
 « and co-ordination of transport.

« The problem has its origin in the
 « fundamental changes in the means of
 « transport since the coming of railways
 « as well as in the changes which have
 « taken place in commercial and indus-
 « trial requirements.

« It is therefore necessary to re-examine
 « the transport problem in relation to
 « all the existing forms of transport.
 « This examination must be carried out
 « in such a way as to determine the
 « means of transport to be abandoned
 « and the new forms to replace them.

« 2.(*) — In order to enable the rail-
 « ways to fulfil, under the most economic
 « conditions, their role as general trans-

« port undertakings, they must be em-
 « powered, within the general framework
 « of transport legislation, under certain
 « circumstances, with a priority right, for
 « the substitute services, to provide and
 « to operate the most economic form of
 « transport.

« This solution will assure transport
 « users the best guarantee of depend-
 « ability, comfort and adequacy of ser-
 « vice.

« 3. — In such a system of public
 « transportation, road transport is, in
 « principle, used as a means of regional
 « collection and dispersal from and to
 « certain concentration points situated on
 « the most important railway lines. Under
 « these circumstances, road transport may
 « be substituted, within the bounds need-
 « ed, and under the responsibility of the
 « railways, for rail service.

« Experience shows that such substitu-
 « tion is most easily arranged and admi-
 « nistered under a single authority (1).

(*) The wording of Summaries 2, 4 and 5 is slightly different from the provisional text published in our *Bulletin* for July 1952, as some formal alterations have been made to put the English text in harmony with the French text of these Summaries.

(1) From an exchange of views during the plenary meeting, it is understood that it is only the Railway Administrations, who must organize and operate the substitute road services. By « authority », it is therefore meant the Railway Administration.

« Complementary rail/road service has
« never been attainable where there is
« far-reaching competition between se-
« parate rail and road undertakings.

« 4.(*) — Whenever economic reasons
« justify such a procedure the Railway
« Administrations must be permitted to
« suppress a railway service or to sub-
« stitute road services for railway services.

« Whenever this permission is refused
« the railway should be indemnified for
« the economies which the proposed
« change might have allowed it to
« realize.

« 5.(*) — It is generally admitted that
« the partial or total suppression of the
« railway service should be achieved on
« lines with very light traffic.

« Studies and realizations, which have
« been made in this sphere by certain Rail-
« way Administrations, have indicated
« that where traffic is less than 250 000
« traffic units per annum and kilometre
« of line, then it is more economical to
« ensure traffic by road rather than by rail
« on the basis of retaining railway rates.

« 6. — The experience of certain
« European Railway Administrations in-
« dicates that the withdrawal of passenger
« services on lines with a mixed traffic
« and their replacement by road services
« will lead to an appreciable increase
« in the daily mileage operated in com-
« parison with the passenger train service.

« While improving the service, it makes
« possible the achievement of the major
« part of the economies which could be
« obtained by complete closure.

« 7. — The withdrawal of freight trains
« and the closing down of the lines
« cannot generally be considered unless
« the public have the opportunity of
« loading and unloading their freight
« traffic at another station — without
« excessively extending the length of
« haul — or unless the railways can carry
« out the road transport without the
« additional expenses exceeding the econo-
« mies realised.

« In the latter case, it becomes advisable
« to use either, on the one hand, containers
« or similar carrying equipment, or on the
« other hand, wagon-carrying trailers.

« It should be pointed out that on
« lines of mixed traffic the suspension of
« freight services generally only brings
« about comparatively limited savings.

« 8. — The building of new lines is
« practically no longer justified except in
« incompletely developed or exploited
« regions. It usually arises out of the
« need for freight transport facilities.

« There may, however, be justification
« for the new construction of urban and
« suburban passenger lines in order to
« relieve the overcrowding of rail and
« road services or to provide for the
« growth of a city and the spread of the
« population.

« 9. — According to estimates made
« by various Railway Administrations, the
« minimum traffic density justifying the
« building of a new separate line should
« be between 300 000 and 500 000 traffic
« units per annum and per kilometre of line.

« When it is a question of a new feeder
« line to an existing line or network, the
« return on the capital of the new line

(*) See note on the preceding page.

« can be ensured by a lesser level of
« traffic than that referred to in the
« preceding paragraph.

« Smaller volumes of traffic can be
« handled more economically by road,
« provided that roads are capable of
« carrying heavy vehicles with trailers.

« 10. — In order to ensure more easily
« the return on capital on a new line,
« railway administrations might be

« authorized to depart, in certain cases,
« from the general obligation of applying
« uniform rates throughout the system;
« and therefore to put into force higher
« rates on these lines than those generally
« applicable.

« The application of a similar policy to
« lines with a light traffic might be
« desirable in those cases where it would
« make possible the continued operation
« of these lines. »

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